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The Journal of

The American Dietetic Association

PRESIDENT'S ADDRESS*

ANNA E. BOLLER

In reviewing the work of the past year, I am reminded of something Miss Abby Marlatt said at a meeting in Chicago last winter. She said that history was the yardstick by which we are able to measure the progress toward our goal. The growth of our Association has been rapid. Few national organizations with the high professional standards which we have set have grown as rapidly as our Association has in the few years of its existence. The vision of our founders, the progressiveness and unification of purpose among our elected officers, the willingness of members to work, and many other factors, have entered into our progress. Our growth is probably represented first by our increase in membership. The early records are not complete, but a detailed study of our membership has given us the following figures:

Year	*Number of Members*
1917–1918	59
1918–1919	169
1919–1920	337
1920–1921	457
1921–1922	592
1922–1923	677
1923–1924	711
1924–1925	735
1925–1926	744
1926–1927	1,001
1927–1928	1,263
1928–1929	1,413

* Presented before the annual meeting of The American Dietetic Association, Detroit, Michigan, October 7, 1929.

In the last month one hundred new names have been added, so that the membership is now over 1500.

Our growth in membership, which has more than doubled in the last two years, has brought with it a great increase in our activities, thus necessitating increased office space and staff. Moreover, our finances have multiplied, our income now being one hundred per cent, and our expenses seventy-five per cent greater than they were two years ago. We cannot doubt the fact that this rapid growth is due in part to the wider recognition we are receiving everywhere. One of the most interesting proofs of this is that many of the advertisements for dietitians in professional and semi-professional publications state that all dietitians applying for positions must be members of the American Dietetic Association. Realizing this increased influence, it is a responsibility of the members of the Executive Committee and of each member of the Association to do her part toward furthering the development of such professional standards as would enable the profession not only to keep what it has already acquired, but also to advance to such a place that its influence will be progressively widespread throughout the entire world.

The professional work of the Association is carried on to a very large extent by the sections through their sub-committees. At the Executive Committee meeting in December 1928, the section chairmen presented interesting programs for the year's work. At the annual meeting dinners were planned so that all members interested in the work of a particular section might have an opportunity to help in outlining the work for the future; in other words, so that we might become more conscious of our section activities, and through this consciousness develop a more stable program in which we will find greater continuity of work and purpose. Probably one of the weakest points in our organization has been this lack of continuity in our sections.

Members will be interested to know that at the Executive Committee meeting just preceding the convention, it was decided that a committee should be appointed by the President to study the best method of developing this continuity in the sections. No doubt the work of the Committee on History, with Mrs. Esther Ackerson Fischer as chairman, will provide a background for the work of this new committee. In addition, the work of the committee on the Organization Book, of which Miss Millie Kalsem is chairman, will also assist materially in developing a logical sequence in section programs.

I should like to call to your attention two matters which need careful consideration. For the past few years, several state groups have felt the

need for some disciplinary measure to protect the public against food quacks and faddists, and have also been working on state legislation for dietitians. Members of the Executive Committee have discussed these problems. Feeling that the standards should be uniform throughout the country, and knowing how impossible this would be if each state were to ask for state registration, it was thought advisable to make a study of the possibilities of national registration. The results of this study have brought forth some interesting facts which no doubt will need further investigation.

Another point of especial interest is that of student dietetic courses. We should understand that the questionnaire method now in use for the approval of these courses is a beginner's method, similar to systems used by other organizations when they are developing approved courses. It is apparent that a method which depends entirely upon an individual's evaluation of her own work as the basis for approval is not entirely satisfactory. We are proud of the work started several years ago and so ably carried on this year, but we feel the need for a more efficient method of approving these courses. We are grateful to our Program Committee for their excellent plans, and especially to Mrs. Katherine Mitchell Thoma, who so willingly assumed the responsibility when Miss Florence Smith, Chairman of the Program Committee, was called home and unable to continue the work.

This is the first year we have had the present organization of the Journal Board. During the year definite policies have been adopted which will be helpful to both the editor and business manager in the future. Certain plans for the further development of the Journal are under way. I feel confident that every member is proud of the high standards and growth of our official publication, which is received in all parts of the world. It is interesting to know that we are printing two and one-half times as many journals as we did the first year of the Journal's existence.

Confident that one of our greatest opportunities for growth lies in the development of a strong affiliation program, Dr. Martha Koehne, first vice-president, was asked to serve as chairman of a committee to study our present affiliation program, to find its weak points, and to recommend a new program which will make affiliation mutually beneficial.

One of the dreams of our Association has been to establish a research scholarship, or some equally worthy project. This was one of the things the organization had in mind in inaugurating life membership several years ago. You will recall that last year it was voted to increase the life membership dues. It seemed advisable to stimulate interest, and Mrs.

Thelma Tubbs Currier, second vice-president, consented to serve as chairman of the committee.

If the Association is to take advantage of the respect that the public has for us, it is necessary that we develop some method of investigating foods, food advertising, and food fads, including the various absurd diets which are now to be found in many of our newspapers. The results of these investigations should be kept on file, so that anyone wishing the information might obtain it through the business office. It was with this in mind that Dr. Kate Daum was asked to serve as chairman of an Investigation Committee. The work is in its infancy, and it will take many years to develop this Bureau of Investigation through which all unethical advertising, all "quack" dietitians, and all absurd and unscientific ideas about food may be investigated. In other words, this bureau should in time become a real influence in the world of food and nutrition.

The work of the Placement Bureau has become such an important part of the Association work, that it has seemed advisable for an Advisory Board to handle the problems of the Bureau. There are certain considerations, which the director of the Placement Bureau cannot take upon herself, to be kept in mind in placing dietitians whose qualifications are not entirely satisfactory, and in filling positions in institutions which do not meet proper standards. The director needs such a Board to assist her in these problems. Several years ago, the Executive Committee ruled that she should consult the Chicago members of the Executive Committee, but it seems advisable now to have this advisory board more definitely representative of dietitians throughout the country. The members of this Board should not only represent the Association geographically, but they should create a keener interest in the Placement Bureau in all parts of the country.

When our constitution and by-laws were drawn up some four years ago, the Association lawyer believed that we should keep the by-laws under the control of the Executive Committee, so that as changes seemed necessary, they might be made without waiting for the annual meeting. At the Executive Committee meeting last December an amendment to the by-laws was proposed. This brought about a discussion as to whether or not the Executive Committee should have the right to make changes in the method of handling finances, the duties of various officers, and other details of administration; the decision was reached that they should not have this power. It seemed that after four years of use, the by-laws should be sufficiently well-formed so that they should remain unchanged from one annual meeting to the next. Therefore, the Executive Com-

mittee made the recommendation to the Revisions Committee that our constitution be modified to follow the example of most large organizations, in that all amendments to the constitution and by-laws be made at the annual meeting of the members. For this reason, the word "by-laws" has been added in Section 1 of Article VII, and with the adoption of this amendment, the automatic elimination of that part of the by-laws which provides for amendments to the by-laws by the Executive Committee. We should express our appreciation to Miss Whittaker, Chairman of the Revisions Committee, for her excellent work.

I take this opportunity to thank every member of the Executive Committee, every committee chairman, and all the members who have worked so harmoniously and earnestly this past year. I am deeply grateful for the support given me. I feel that we have all been working with as unified a purpose as any group could possibly have, and that it is through this unification of purpose and spirit of coöperation that the committees have been able to obtain such gratifying results. The accomplishment of the far-reaching goal which we have set for our Association is going to be realized through just such coördinated efforts, in conjunction with the highest possible aims. May I leave with you the thought expressed by Daniel Burnham:

"Make no little plans—they have no magic to stir men's blood, and probably themselves will not be realized. Make big plans—aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are gone will be a living thing, asserting itself with growing intensity."

THE MECHANICS OF DIGESTION*

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A man can digest his food comfortably without gastric juice; he can digest it without a stomach, without a gallbladder, without a colon, or without two-thirds of the small intestine. So far as the chemical side of digestion is concerned one part of the tract can take over much of the work of another and the patient will remain unconscious of what has taken place, but as soon as something goes wrong with the mechanics of the tube, that is, with the progress of material through it, there is trouble aplenty.

With a slowing of the current there is often a loss of appetite, a sensation of fullness in the epigastrium, or a feeling that the food is "lying like a rock in the stomach." Constipation is often complained of, and there may be flatulence and bloating. When peristalsis shows a tendency to run backward toward the mouth there may be nausea, belching, regurgitation, water-brash, heart-burn or vomiting. When obstruction becomes marked, there is colic and distention, and unless relief is promptly obtained the patient dies. One of the main reasons why patients with carcinoma of the digestive tract so seldom reach the surgeon in time is that the destructive action of the tumor on the mucous membrane rarely produces symptoms, and hence the victim does not know he is ill until the growth has become large enough to block the lumen of the stomach or of the bowel.

It would seem obvious, then, that most of the symptoms of indigestion are produced by disturbances in the motor functions of the stomach and bowel; this being true, it should be equally obvious that everyone who treats the sick should be learning as much as possible about the mechanics of the digestive tract. How can one tinker intelligently with a tube that is not functioning properly when one knows little about the way in which food is normally propelled through it? Why do the peristaltic waves tend usually to travel from the mouth toward the anus, and what has gone wrong when they fail to progress, or when they turn around and go backward?

*Read before the American Dietetic Association, Detroit, Michigan, October 7, 1929

After many years spent in grappling with these problems I have come to the conclusion that food goes down the bowel largely because the irritability, the activity, the rhythmicity, and the tonus of the muscular wall are all graded downward from high values in the duodenum to low ones in the ileum. In a pipeline, water moves from higher levels to lower ones, winds flow from regions of high barometric pressure to regions of low pressure, and electricity flows from regions of high potential to regions of low potential. It would seem obvious to anyone with a training in physics that in every muscular tube material must flow from regions of high activity and strong pumping power to regions of low activity and weak pumping power. If this is true, then one can think of several ways in which the gradient of forces in the bowel might be reversed.

One could either diminish the efficiency of the muscle at the upper end of the tract or one could increase the efficiency at the lower end. The nausea and vomiting that are seen in cases of acute appendicitis are easily explainable if it is assumed that the lower end of the ileum has been so stimulated by the inflammation in its neighborhood that it has become even more active, irritable, and tonic than the duodenum usually is. The results of animal experiments indicate strongly that the loss of appetite and the inability to eat seen in patients with fever, and in asthenic sickly girls, is due largely to the fact that toxins or adverse influences of some kind have injured the sensitive tissues in the duodenum more than they have injured the comparatively insensitive ones in the lower half of the ileum.

I sometimes liken the man or woman with a steep gradient of intestinal forces to a kitchen with a sink connected directly to a good-sized pipe, running directly down to the sewer. With such a sink the strainer can be removed and anything that can be squeezed through the opening will go down without further difficulty. On the other hand, the man or woman with a poor gradient of forces, or with some narrow or up-hill stretches in the digestive tube, can be compared to a kitchen with a sink connected to a pipe with a poor drop, or to a pipe with narrow or up-hill segments. With such a sink the strainer must never be removed, and if match-sticks, paper, or cotton are allowed to get in, the drain will soon be blocked.

That this simile is not too fantastic can be seen from an experiment that has been performed several times on dogs, and always with the same result. A loop of bowel is cut out and turned end for end and the continuity of the tube is restored by two anastomoses. Such animals live for months if the greatest care is taken to keep from them rough and indigestible foods. Eventually they die with intestinal obstruction, and

necropsy always shows this to be due to the accumulation of bits of straw, bone, and wood just above the orad suture. It is obvious from these and other experiments that liquids can be forced "uphill" through loops of bowel in which peristalsis is reversed, but solids cannot pass unless the normal downward gradation in forces is present.

What is the lesson that we who are interested in dietetics should learn from this experiment? I believe it is this: that whenever we are dealing with a digestive tract that is not transporting its contents normally, a tract that has such a poor gradient that waves can run almost as easily in one direction as in the other, or a tract which, because of spasm or actual mechanical obstruction, has narrow places in it here and there, we must try to help matters by giving a smooth diet, the constitutents of which will soon be reduced in the stomach to a liquid pap.

The craze for vitamins and vegetables has, I think, begun to abate among the more intelligent physicians and dietitians, and as it passes they begin again to see that in prescribing food for the sick, they should at times consider its digestibility as well as its fitness for use on a long arctic expedition. Actually, at times, we supposedly grown-up, well-read, and scientific people do some very amusing things. We are so worried about vitamins that daily, in prescribing diets, we act as if the devils of scurvy, beriberi, xerophthalmia, and rickets were right on our heels. Now, really, are they so menacing as that? Did any of you ever see a case of scurvy, rickets, beriberi, or xerophthalmia in an adult middle-class American? For twenty years, in consultant practice, I have been seeing unusual cases, and yet, so far as I know, I have seen but one case of beriberi, in a Chinese, but one case of scurvy, in a Canadian trapper, and one case of pellagra, in a man who had been kept too long on an ulcer diet. During this same time I have met many patients who had lived for months or years, apparently unharmed, on freakish restricted diets which one would think would have ruined the health of any self-respecting laboratory rat.

A few weeks ago I noted in one of our leading medical journals an able plea for the inclusion of all the vitamins, salts, and so forth, in the elimination diets which are now used in the study of patients with urticaria. The new diet lists proposed were ingenious and I am glad to have them, but the idea of worrying about vitamins in a diet that is to be used for a week or two amused me. One would think that so far as diet is concerned there is not one of us who is more than one jump ahead of the hospital ambulance. Surely this is not so, and one need only keep one's eyes open for a short while to see that there is no such occasion for worry. For

instance, early last June I saw a woman with frequently recurring attacks of migraine and urticaria. In an effort to learn which foods were at fault I asked her to live for two weeks on nothing but meat, rice, butter, sugar, and jello, and then to report. She did not return until late in August when she explained that she had been so completely relieved that she had had no desire to enlarge the diet and had not been able to see the need for consulting me further. So far as I could see she had not been harmed in any way by her abstinence.

Please remember that I am not trying to prove that vitamins are unnecessary or that green foods are undesirable in every diet. All I ask is that we do not ride our hobby too hard. Remember that when we treat all our patients the same way there is little to distinguish our practice from that of the quack. Often we must prescribe diets which are rich in vitamins, in iron, or in roughage, but sometimes, with a very sick patient, we must forget all these things, and must concentrate our efforts on obtaining easily digestible food, or food with a low residue.

The facts, then, that I would emphasize are: first, that the mechanical factors of digestion are of extreme importance; second, that the consistence and cellulose content of food is often of much greater importance than its vitamin content; and third, that we do not have to concern ourselves about the vitamins in diets designed for patients with transient illnesses.

RECENT ADVANCEMENT IN THE STUDY OF BASAL METABOLISM IN HEALTH AND DISEASE

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III. METABOLISM IN DISEASE

A. Nutritional disorders. 1. Fasting and undernutrition. The papers on the subject of fasting and undernutrition appearing since 1924 are in agreement with the results obtained by previous investigators. It has been a well recognized fact that during starvation there is a rapid reduction in heat production until a minimum is reached around the twentieth day. Talbot and his associates (105), in their study of 4 children between the ages of 11 and 13, reported that the decrease in heat production resulting from a 14-day fast was greater than that from a 7-day fast. The skin temperature, blood pressure and pulse rate were all lowered following a curve resembling that for the basal metabolism. Similar conclusions were drawn by Kleitman (97) from his investigations on a man who fasted 41 days. During this period his metabolic rate fell 36 per cent, his weight 25 and his pulse rate 33. The latter showed a marked relationship to the fall in heat production. In accordance with the above results, Labbé and Stévénin (106) demonstrated a greater loss of heat production than body weight during a 41 day fast, the minimum loss of weight occurred when the metabolic rate was lowest. Consequently, the above results indicated that the loss in weight alone cannot account for the reduction in metabolism. In both studies the basal metabolic rate rose to normal after discontinuing the fast. Therefore, the ingestion of food apparently played an important rôle in the energy metabolism.

An interesting paper was published by Forbes and his associates (107) on the metabolism of steers at various planes of nutrition. They observed that the rise in heat production was negligible from a fast to a half maintenance diet, and that it increased more from the latter to full maintenance but the total increase in basal metabolism during the above periods was lower than that brought about by doubling the full

diet. Careful studies on undernourished infants have recently been made by Fleming (108), Fouet (109), Levine (110) and his associates. Their results agreed that there was little change in the basal metabolic rate until the child was from 25 to 36 per cent underweight. They attributed the change in heat production of marantic infants to the loss in weight and not to the disease itself. Although the total calories per 24 hours were low, Levine demonstrated that the emaciated infant had a higher metabolism per kilogram of body weight than the normal child of the same age. About the same time, Wang and her associates (111) made an extensive study on 9 normal and 32 undernourished children from 4 to 13 years of age. They grouped their children according to the percentage deviation from normal weight which was from plus 5.8 to minus 28.9 per cent. The energy production of the children per 24 hours was within normal limits. However, it tended to decrease with increasing undernourishment. It was also true when the value was calculated according to height. Little change was found in the basal metabolism of 4 children over 7 per cent underweight studied by Morgan and Hatfield (112). The tendency was toward a high basal per kilogram of body weight. In 10 extremely malnourished adults suffering from nervous anorexia and digestive disturbances, Labbé and Stévénin (113) reported basal metabolism values from 11 to 39 per cent below normal. Moller (114) also obtained low rates in 4 similar cases.

2. Obesity and overnutrition. Generally obesity might be divided into two classes, one due to endocrine deficiency, as in myxedema, and the other due to overnutrition. Most investigators agree that the heat production in the latter class is not much changed from normal. In a series of studies made on the metabolism of obesity in our laboratory (115), the basal metabolism of obese subjects was found to be within normal limits. The average of 36 determinations on 17 subjects was 4.4 per cent plus, as compared with the standard. Late in the series (116) the specific dynamic action of the obese subjects was found to be lower than that of either the normal or the thin persons. The same authors (117) further demonstrated that after the ingestion of food the obese tended to derive their energy more from carbohydrate than from fat. Jones (118) substantiated the conclusions drawn by the above authors. In his subjects with simple obesity no change in the heat production was noticed, but in those suffering from endocrine disturbances the metabolism was lowered. Fifty-five per cent of the 100 obese subjects of Castex and Schteingart (119) gave normal values. The other half was about equally divided between values above and below the

standard. Pathological complications were present in 20 per cent of their subjects.

3. Influence of vitamin B. With the exception of beri-beri or polyneuritis, little work has been done on the basal metabolism of deficiency diseases since 1924. In most cases the studies were conducted on animals and the results were exceedingly contradictory. The investigations of Gulick (120) on rats, and Deuel and Weiss (121) on dogs, showed no change in energy value in their animals suffering from experimental polyneuritis other than that due to loss of weight and muscular twitchings. By adding excessive amounts of vitamin B, up to 10 times the estimated requirement, to a normal diet of rats, Mitchell and Carmen (122) also failed to find any changes in heat production. On the other hand, in a study of 9 human subjects, 4 with beri-beri and 5 normals receiving a diet containing different amounts of vitamin B, Okada and his co-workers (123) demonstrated a reduced energy value. The heat production returned to normal following the increase in the vitamin intake. The respiratory quotient showed no marked change. Since the body weight did not decrease in all subjects, starvation could not be the chief cause for the lowered metabolism.

B. Pregnancy. During the last few years a number of articles on the basal metabolic rate during pregnancy have been published. One of the most interesting studies was reported by Sandiford and Wheeler (124) who made a careful study of the heat production of a young woman before, during and after pregnancy. According to the Rochester investigators, the increase in metabolic rate was very slight during the first half of pregnancy. The greatest rise occurred between the eighth and the tenth lunar months with a maximum of 25 per cent above the normal value. The energy value was equal to that of the fetus, calculated from its estimated surface area, plus the normal metabolism of the mother. There was no increase during lactation, a value near normal being obtained shortly after delivery. In a study of 47 cases, Rowe and Alcott (125) reported a similar increase in the basal metabolism of pregnant women. They attributed about one-third of the elevation to the gain in weight, and the other two-thirds to some cause inherent with pregnancy. Peralta-Ramos and Schteingart (126) also observed a rise in the heat production in 61 per cent of their 70 patients studied at various periods during pregnancy. The increase usually occurred during the second half of pregnancy and there was a sudden drop to normal between the second and the fifteenth day of the puerperium. Endocrine disturbances as a partial cause of the increased basal metabolic rate were sug-

gested by several authors. Klaften (127) concluded from his studies that the administration of thyroid extract influenced the heat production during pregnancy to a greater extent than during normal life. Stander and Peckham (128), working with human subjects, and Marine and his associates (129), using rabbits, stated that the increase was due to the growing demands of the fetus and placenta as well as to the thyroid changes. Contrary to the above authors, Garipuy and his associates (130) stated that the elevation of the metabolism was caused by the action of certain products of pregnancy aside from the thyroid hormone. A greater increase in energy production during pregnancy was reported by Davis (131) in his patients with hyperthyroidism, than in his normal cases. Mussey and his co-workers (132) in their study of 42 pregnant subjects complicated with exophthalmic goiter, observed no higher mortality in either the fetus or the mother. Further, they claimed that a metabolic rate of 25 to 35 per cent above normal at the end of pregnancy was not necessarily an indication of hyperthyroidism.

C. Disorders of endocrine glands. 1. Thyroid. Voluminous literature has been published on the influence of the endocrine glands, especially the thyroid, on heat production. In most cases the results are in agreement with early investigators. Simple or colloid goiters which are especially prevalent in the inland regions of this country and Switzerland manifest themselves in children usually at the age of puberty. The cause has been attributed to the deficiency or lack of iodine in water and foods. According to Eckstein and Mommer (133), and Gardiner-Hill and his associates (134), the basal metabolism was normal in more than 90 per cent of their patients with adolescent goiter. In a survey made at Northwestern University, Chicago (135), 26.5 per cent of the 635 women studied had an enlarged thyroid. The majority of this group had a simple colloid goiter as shown by a normal metabolism in 81.6 per cent and a low value in 15.4 per cent. Only 2.8 per cent had an increased metabolism.

Exophthalmic goiter, which is sometimes called hyperthyroidism, Graves' or Basedow's disease, is due to the overactivity of an enlarged thyroid gland. It is characterized by an increased basal metabolic rate, usually more than 20 per cent and sometimes as high as 100 per cent, nervous symptoms, abnormally increased response to work and bulging of the eyes or exophthalmos which does not often appear in the early stages of the disease (136). Metabolic determinations form one of the most conclusive means of diagnosing the disease. Strouse and Binswanger (137) reported 32 cases with symptoms resembling hyper-

thyroidism without an increased metabolism. According to Kessel and Hyman (138) out of 189,477 cases observed at Mount Sinai Hospital, New York, only 200 had a true goiter. It is, therefore, difficult to diagnose exophthalmic goiter and dangerous to operate without the aid of basal metabolic tests. Operation or roentgen ray treatment may reduce the basal metabolic rate to normal. One hundred cases of hyperthyroidism studied by Richter (139) had an average basal metabolism of 50.5 per cent above the standard before operation. In 94 per cent of his cases the corresponding value was reduced to 1.6 per cent after operation. Ninety-eight per cent of his patients were completely restored to normal condition. Lowered heat production following thyroidectomy was also reported by de Quervain and Pedotti (140). Basal metabolic rates of from 16 to 44 per cent below the normal value, following the recovery from thyrotoxicosis, were observed by Thompson and Thompson (141) in 27 cases without myxedema. Thyroid extract failed to raise the metabolic rate, but caused a return of the symptoms of hyperthyroidism.

It has been generally known that the augmented metabolism of goiterous patients is lowered by the administration of a small amount of iodine in the form of a salt, or Lugol's solution, which contains 5 per cent iodine in 10 per cent potassium iodide. In our laboratory it is quite common for the metabolic rate of patients with exophthalmic goiter to be reduced 25 per cent or more after the administration of Lugol's solution. The surgical treatment is usually preceded by giving iodine. The above facts were recently substantiated by Cowell and Mellanby (142), Rienhoff (143), Fitzgerald (144), and Martin (145). The former (142) believed that small doses of the drug were more valuable than larger ones and that the improvement occurred 10 to 20 days after its administration. It was claimed by Rienhoff (143) that the iodine treatment changed the histologic picture of exophthalmic goiter in his patients into that of a resting colloid type. However, the promiscuous use of iodine in goiterous patients is dangerous, because it is a well-known fact that a certain type of goiter, adenomatous goiter which is not hyperfunctioning, can often be transformed by its use into a goiter with hyperthyroidism and a high basal metabolism. X-ray, according to Holmes (146), and insulin, according to Meyer, both lowered the metabolism.

In contrast to hyperthyroidism a low basal metabolic rate is generally found in the disease known as myxedema in adults and cretinism in children. It is caused either by absence, atrophy, deficiency or removal

of the active thyroid tissue. In severe cases the heat production may be reduced as much as 40 per cent below normal, but in the milder forms the values are not much lowered. The administration of a small daily dose of from 0.8 to 2.0 milligrams of thyroxin by mouth was required by the patients of Jackson (147) to keep the basal metabolism at normal and improve the accompanying symptoms. Although thyroxin increased the heat production in Topper and Cohen's 148 patients with cretinism, it had no effect on the energy value of normal children. Their results indicated that the thyroid extract increased the phase of metabolism which was dominant in the individual anabolism in a child and the catabolism in an adult. A maximum increase of 120 per cent over the original basal metabolic value of normal dogs, occurring three weeks after the daily administration of either desiccated thyroid or Kendall's thyroxin, was reported by Kunde (149). The corresponding augmentation of the heat production in thyrodectomized dogs was 170 per cent, but there was no quantitative relationship between the size of the dose and the energy value. The rise in metabolism and the specific dynamic action following the administration of thyroid extract was inhibited by a high fat diet as reported by Abelin (150). Deuel and his associates (151) found that the ingestion of 7 milligrams of thyroxin on eight consecutive days raised the heat production from 21 to 1 per cent below the standard in a normal subject on a low protein diet. It was parallel to an increase in the elimination of nitrogen from 2.10 to 6.12 grams per day. A marked fall in urinary nitrogen accompanied by a slight decrease in basal metabolism then followed. The authors thus concluded that the administration of thyroxin decreased the deposited protein more rapidly than a low protein diet alone.

2. Pituitary. The relationship between pituitary diseases and basal metabolism has been studied extensively, but conclusive results have not so far been obtained. According to Liebesny (152), discrepancies in the results reported by various investigators were chiefly due to the presence of two internal secretions of the pituitary gland with partially antagonistic actions. In an extensive study of Cushing and Davidoff (153), 32 out of 72 cases of acromegaly showed an average increase of over 62 per cent in basal metabolic rate. In 107 cases of hypopituitarism, 66.3 per cent had an average of 19.3 per cent below the standard, the lowest value being 36 per cent below. They claimed that high basal metabolism in acromegaly, accompanied by symptoms of thyrotoxicosis, could be diminished by the removal of a portion of the hypophysis, showing thereby that acromegaly bears the same relationship to pitui-

tary insufficiency as exophthalmic goiter does to hypothyroidism. They, therefore, concluded that the anterior lobe of the pituitary body secreted a substance which raised the metabolism either directly or indirectly through the thyroid. Castex and Schteingart (154), and Labbé and his colleagues (155) demonstrated an elevation of heat production in typical cases of acromegaly, although in those with slight symptoms the metabolism was normal or even below. Increased heat production coupled with a low calcemia was observed by Waldorp (156) in four cases of acromegaly. The deficient activity of the pituitary gland was often associated with obesity, a lowered basal metabolic rate, and a reduced specific dynamic action, according to Kestner and his associates (157).

Foster and Smith (158) reduced the energy value of rats 35 per cent by the removal of the hypophysis. The administration of either thyroid or the extract of the anterior lobe of pituitary would bring the value back to normal. Kestner and his co-workers (157), Bowman and Grabfield (159), and Castex and Schteingart (160) also found an increase in the energy production following the administration of pituitary extract, especially that from the anterior lobe of the gland.

3. Adrenals. The exact relationship of the adrenal glands to basal metabolism has not been fully understood. The majority of investigators, however, agree that the removal or the degeneration of the glands would diminish the heat production, and vice versa, that injection of the extract would increase it. Barlow (161), and McIver and Bright (162), temporarily lowered the energy value in animals by adrenalectomy. The latter authors therefore concluded that the coöperation of the thyroid was not necessary to produce a change in heat production. An augmentation of basal metabolism following the administration of the active principle of the suprarenal glands was unanimously observed by a number of recent investigators (163, 164, 165, 166, 167, 168, 169). Hunt and Bright (165) found that adrenalin given in dosage of 0.005 milligrams per kilo of body weight per minute for six minutes, caused an average increase of 10.6 per cent in the basal metabolic rate during the following twenty minute period. The maximum increase was 19.0 per cent.

4. Diabetes and insulin. The work of early investigators has demonstrated the fact that the basal metabolism is unchanged in mild cases of diabetes mellitus. The lowered rate found in severe cases has been attributed to the undernutrition of patients, and, roughly speaking, the decrease was proportional to the degree of underweight. Since 1924

the investigations on this subject have chiefly been made in connection with the influence of insulin on the respiratory quotient. Chaikoff and Macleod (170), and several others (171, 172, 173, 169, 174), agreed that the respiratory quotient was raised by the injection of insulin. The maximum rise occurred usually between the second and the fourth hours after its administration and was undoubtedly due to the increased oxidation of carbohydrate. Holten (174) observed an elevated metabolism in his patients with severe diabetes mellitus when the respiratory quotient was low, and a normal value when it was above 0.80. The heat production of 17 rabbits studied by Hawley and Murlin (175) rose above the basal values during the first and the third hours following the injection of insulin. A drop was observed during the second and the fourth hours. The rise of the respiratory quotient occurred during the second hour and it rapidly returned to its pre-insulin level during the third and the fourth hours. In a study of 38 diabetics complicated with hyperthyroidism, and one with myxedema, Wilder (176) claimed, "A mild and possibly inconspicuous diabetes may be fanned into flame by hyperthyroidism and severe hyperthyroidism (crisis) will readily provoke coma in a diabetic patient." Thus the author concluded that the requirement of insulin is increased by hyperthyroidism and that the administration of iodine reduces the intensity of the diabetes as well as basal metabolism.

D. Diseases of circulatory system. 1. Leukemia. In the various forms of leukemia the basal metabolic rate has been found to be definitely elevated, comparable to that of exophthalmic goiter. The cause of the rise is not yet clear, but the suggestion has been made that it is due either to the rapid destruction of the blood cells or to a hormone similar to thyroxin. In a statistical study of 272 observations on 36 patients with chronic myelogenous leukemia, Riddle and Sturgis (177) reported an increased heat production in their untreated cases. Daily basal metabolic tests and blood counts were made on five subjects in order to find out whether there was any relationship between the two. With the exception of terminal cases, roentgen ray treatment usually lowered the basal metabolic rate and the leukocyte count for a period of from three to six months. Generally the heat production varied directly with the number of immature, especially the myeloid, cells. They concluded that the metabolic determination might be of value in the prognosis of the disease. Similar results were reported by Minot and Isaacs (178), and Krantz and Riddle (179), in their studies of chronic lymphatic leukemia. The high energy values of 31 cases studied by the

latter authors was associated with the decrease in blood platelets. Roentgen rays produced no effect when the platelets were reduced to 60,000 per cubic millimeter.

2. Anemia. No definite relationship has been found beween the degree of anemia and the basal metabolism. Values varying from plus 20 to minus 20 per cent from the standard have been reported by different investigators, but the cause was not attributed to the disease. Curschmann and Bachmann (180) noted normal metabolic rates in 7 pernicious anemia patients during remission but increased rates during the progression of the disease. The degree of anemia bore no relationship to the heat production in the leukemia patients of Riddle and Sturgis (177).

E. Cardiac diseases. In most cases of organic heart diseases there is an increase in the heat production which may amount to 40 per cent above the standard. The factors which alter the basal metabolism, however, have been generally attributed to the activity of the muscles of respiration rather than to the disease itself. The increased work of the heart may also aid in the elevation of the oxygen consumption. An average of 30 per cent above standard was reported by Hamburger and Lev (181, 182) in 76 per cent of their cases with decompensated heart disease. The high rate decreased gradually with the return of compensation. Further decompensation was usually followed by an augmentation of the basal value. The metabolism was also increased during the period of paroxysmal tachycardia. Complete rest and sedentary life of the patients probably accounts for the normal or even lowered values reported by Castex and Schteingart (183) and Shapiro (184).

F. Other diseases. In nephritis and hypertension most of the investigators agreed that the basal metabolic rate was unaltered (183, 184, 185). However, Boas and Shapiro (186, 187), Mannaberg (185), and Händel (188) observed an elevated metabolism in a number of their cases with essential hypertension. The majority of the studies of nonfebril pulmonary tuberculosis indicated no changes of the metabolic rate (189, 190). A decrease was reported in 5 patients by Brock and Haskins (191), an increase in grave cases by Röth (192), and an elevation after the injection of threshold doses of old tuberculin by Ahlenstiel (193). According to most authors, pneumonia and other infectious diseases seemed to lower the metabolism, especially in the postinfectious stage of the disease. In the majority of cases, however, the decrease was attributed to undernutrition resulting from the disease (194, 195).

G. Effect of drugs. In agreement with previous investigators, alcohol

was found to raise the basal metabolism of the normal subjects by Zahn (196) and Obregia and Padéano (197). The active principles of coffee and tea also have been known to elevate the heat production in men. An increase of from 12 to 23 per cent of heat production, resulting from the administration of large quantities of either coffee or tea, was demonstrated by Malamud (198) in his study of 6 diabetic patients free from glycosuria. Following the injection of caffeine an augmentation of energy value amounting to 15 to 20 per cent was noted by Schoen and Kaubisch (199). An interesting report given by Walters and Hopkins (200) demonstrated that 0.05 per cent of carbon monoxide produced a lowered basal metabolism in rats along with a reduced body temperature. Anesthetics also caused a lowering of heat production according to Lee (201). Amytal given subcutaneously or intraperitoneally in doses of 5 and 7.5 milligrams per 100 grams of body weight, reduced the metabolism on the average of 8 to 20 per cent respectively. No effect was found on the respiratory quotient. The results from the ingestion of urethane were less conclusive.

Although numerous papers on basal metabolism have appeared during the last five years, little advancement in the knowledge of the metabolism in disease has been made. Interest has been chiefly centered on the metabolism of children of various ages, both normal and undernourished, on pregnancy, and on the influence of race and of internal secretions. Most of the results are far from being conclusive and therefore the field is still open for careful investigation.

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CENTRAL FOOD SERVICE IN THE ALBANY HOSPITAL

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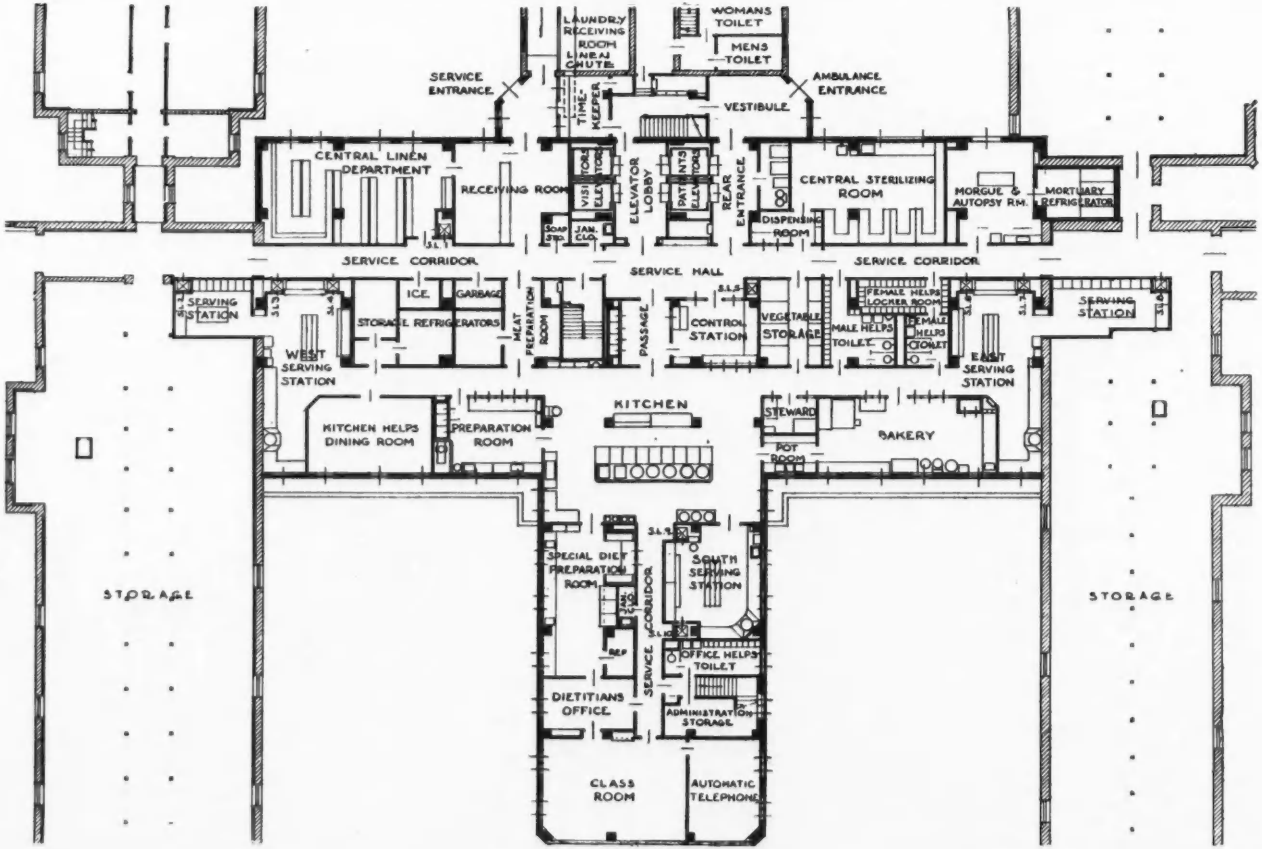
Every year the food service in hospitals receives increasing attention. Not only can apparently slight economies produce gratifying savings in a department spending so large a percentage of an institution's money, but food is an important factor in establishing the popularity of the hospital in the community. The average patient may not recognize the skill of his medical and nursing treatment, but he appreciates good food, well prepared and daintily served. Comparison between hospital and hotel service is frequently made without taking into consideration that the only obligation of the hotel is to please its guest, while in addition to this, it is the duty of the hospital to restore its guest's health, teach him to keep well, and train others to carry on this work.

The type of food service best suited to an institution varies with the type of institution and with the community it serves. The Albany Hospital is a privately controlled institution of five hundred and twenty-five beds. Separate pavilions house the contagious and mental cases. A sanitarium three miles from the main hospital cares for the tubercular patients. All others, both public and private, are received in the main building. Two factors provide diet problems not found in all hospitals. First, it is the teaching hospital of the Albany Medical College, the medical department of Union University; second, the staff of the hospital is not entirely closed, which results in variety of diet therapy and methods of ordering. A dietitian conducts regular classes for medical students and the staff must at all times be prepared to assist students in special assignments.

When contemplating an addition to the hospital, the first problem considered was servicing the extra rooms. Ward kitchens were in use for serving food from both the main kitchen and diet laboratory. So widely separated were these twelve ward kitchens that proper supervision by the dietetic staff could not be given. It was believed, therefore, that by a compact arrangement of kitchens and serving rooms upon a single floor, it would be possible to place entire responsibility on one person. The "Bacon Plan" was adopted.



FLOOR PLAN, ALBANY HOSPITAL

The basement, which is unusually well lighted and ventilated, was chosen for housing the department. No little effort was expended by the architects in making this attractive. The color scheme is green and ivory. Walls are of tile, the floor terrazzo. Although monel metal has been used wherever possible, all steel and iron equipment, both old and new, has been enamelled a soft green. In the center is the kitchen, large enough to prepare three thousand meals daily. Grouped around the kitchen are the various rooms necessary for the preparation and service

VIEW OF A TYPICAL SERVING STATION, ALBANY HOSPITAL

of food. These include the vegetable and meat preparation rooms, the bakery, the diet laboratory and the serving stations. Offices for the chef and dietitians, and the cookery class-room are also located on this floor.

The serving stations are placed on the east, west and south sides of the kitchen, each station serving the trays for all rooms directly above. Such an arrangement increases the vertical and decreases the horizontal distances trays travel. Since mechanical means are used for vertical transportation, time, labor and accidents have been reduced. The serving stations differ somewhat in arrangement, but each is well planned

for speed and efficiency. Two walls of the station are lined with enclosed steel tray racks, each tray space being marked with a room and bed number. Whether or not this bed is occupied the tray is set. In one corner of the station is the electric dish washer flanked on either side by counters for clean and soiled dishes. Beneath the clean dish counter is a warming cabinet. In another corner equipment necessary for serving meals—automatic toaster, egg boiler, urn, gas plate and sink—is grouped conveniently. Through the center of the station extends a refrigerated (brine) set-up table at one end of which stands the electric food cart. These food carts are heated in advance of the meal hour, sent to the kitchen to be filled at serving time and returned immediately. Above the set-up table is a monel metal shelf on which trays of cold foods are placed during serving hour. These foods are prepared in advance and kept in the refrigerated table until needed.

In each station a dietitian, assisted by a student nurse and a serving maid, serves all trays. During the serving of trays there is no noise or confusion in the station and little or no conversation. From four to eight trays are served at one time. These are taken from the tray-rack to the set-up table. When the cold foods have been placed, the hot foods are served, the floor being notified meanwhile. As the dietitian checks out the trays the maid places them on the lift. The signal that the tray is complete is the removal of the diet card by the dietitian. Although all food for patients must be sent from the serving stations, the special diet trays are prepared complete in the diet laboratory and sent from there to the station to be dispatched.

Since the success of central service depends largely upon the efficiency of the lifts, a description of these may not be amiss. Each main station is equipped with two electrically operated lifts with monel metal shelves, and each annex with one. These lifts travel eight floors in fifty-five seconds, carrying four large trays at a time. The serving station has complete control of its lifts. A series of buttons and a switch enables the station to dispatch the lift to the desired floor, to stop it in transit, and to recall it as desired. Unless recalled by the serving station a lift remains at a floor until the door has been opened and closed. Closing the door automatically returns the lift to the station. Green signal lights show the lift's location. On the floors a series of monel metal shelves have been recessed in the wall to hold trays while the lift is being unloaded.

However efficient the planning of a diet department, central service will not be successful without the active coöperation of the diet, nursing and medical staffs. Unless there is a mutual regard for each other's

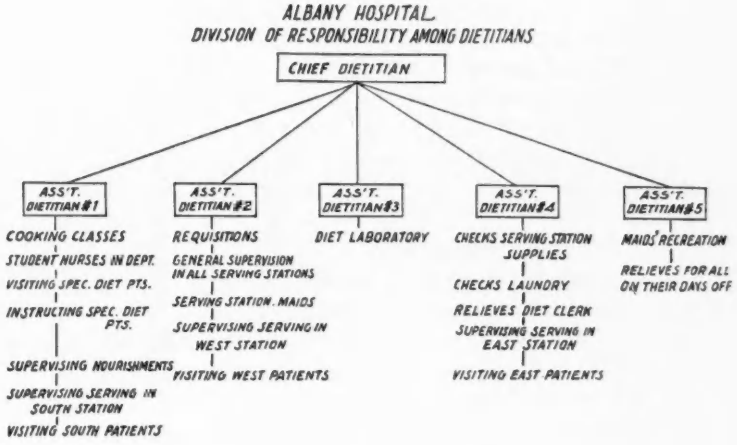
problems and a willingness to be not only fair but generous when difficulties arise, embarrassing results might ensue. This can be appreciated better by following through the diet orders.

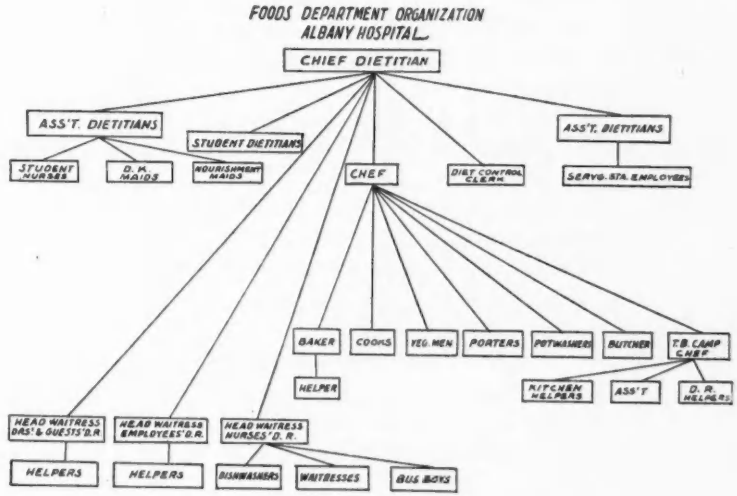
On each floor there is appointed a diet nurse who is responsible for all diet orders and who alone may call the department for corrections, thus eliminating duplicate and contradictory orders and lessening the number of telephone calls. In the morning the diet nurse sends to the diet department a list of the patients on her floor, the diet ordered for each, together with any information regarding personal desires and the needs which may affect a tray. A clerk transfers this information to the diet control sheet, the working record of the department. Every bed in the hospital is listed on these records. Columns are provided with spaces for the names of the patients, the doctor, the special nurse, the diet ordered, diagnosis and remarks. It is the duty of the diet clerk to record changes on these sheets promptly. All the information regarding the patient is transferred to a diet card to be clipped in his napkin ring. Since these diet cards vary in color according to the type of diet, it is easy to see at a glance what the patient may have, greatly expediting tray service. Because of the detailed information on these cards they are not sent to the patient but a second one, or place card, with the patient's name and room number is also clipped in the napkin ring and is left in when the diet card is removed by the dietitian, as previously described. The diet cards are returned to the diet clerk for checking at the end of a meal. She receives by telephone any changes in diet and special orders. All telephone calls are written in a note book and checked when filled. This note book is time stamped at fifteen minute intervals, making it possible to trace errors easily.

Accompanying her diet sheet the floor nurse sends a list of nourishments she knows will be needed for the day. This, of course, is not complete and extra nourishment orders must be telephoned in to the diet clerk. The diet clerk gives these orders to a student nurse, who, assisted by a maid, serves and dispatches them through the proper stations. This nurse makes up all nourishments in bulk, leaving a sufficient supply on hand to last through the night. A night duty maid serves the night orders which must be receipted by the floor nurse, time stamped, and returned to the dietitian. Such a system makes possible a reasonably good control of supplies.

Sippy diets with their hourly feedings presented the most difficult problem. This was solved by sending the milk and cream mixture in thermos bottles to the patients' rooms twice a day, the extra servings of

cereal, eggs, etc., being sent by the nourishment nurse at the required time.





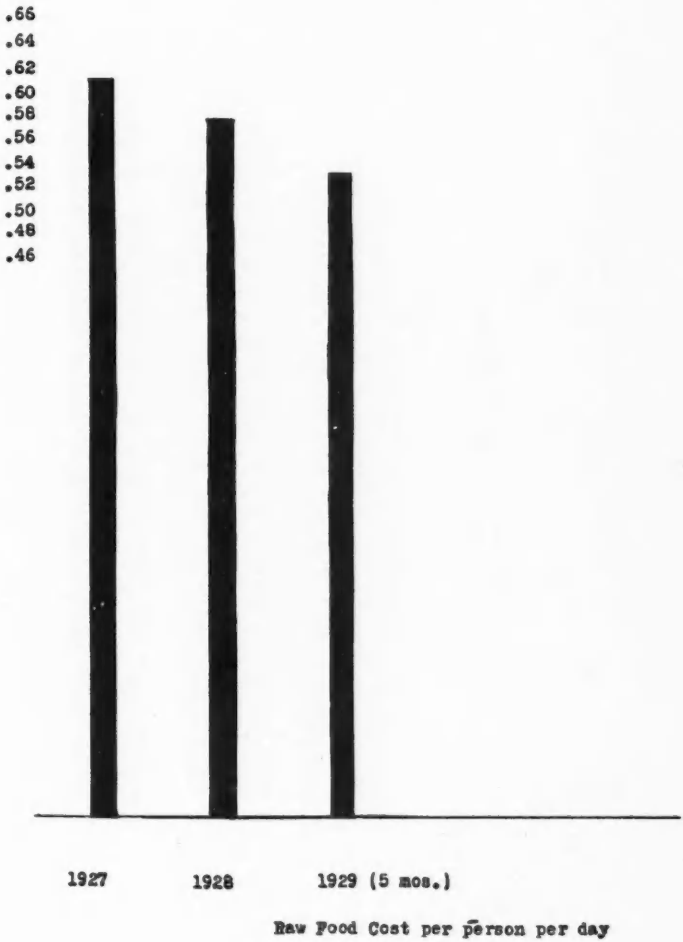
Securing coöperation has been made simple because few changes of importance in hospital personnel have occurred in several years. During the reorganization there were no resignations. Except for such additions

as were necessitated by the increased responsibilities, no changes were made in the dietary staff. This permanence of personnel makes possible a fairer comparison of ward service and central service in the same institution.

Advantages of Central Service

1. Space used for ward kitchen may be used for patients' rooms, thus increasing revenue.
2. Noise, odors, grease and smoke from floors are eliminated.
3. Nurses are relieved of all responsibility in serving trays.
4. Better tray service may be given as having all trays checked by dietitian:
   a. Eliminates mistakes in diet.
   b. More nearly insures that trays are hot.
   c. Emphasizes attention given to garnishes.
   d. Insures uniform service, as special nurses are not likely to consider patients other than their own. First served receive the choice.
5. Better training is provided for the nurses.
   a. They learn how to make trays attractive.
   b. They get a better idea of how to deal with help, reducing friction between nurses and maids on wards.
   c. It instills a spirit of coöperation in the nurse.
6. Advantages are gained by the maids.
   a. They are taught to work efficiently.
   b. They are taught proper care of equipment and a respect for property.
   c. There is an incentive to work harder since merit is acknowledged and rewarded.
   d. They learn courtesy, cleanliness and simple hygiene.
   e. A personal interest is taken in their home life and welfare.
7. Greater use of labor saving devices is possible.
8. Less equipment is necessary, eliminating ward kitchen equipment.
9. Equipment lasts longer as:
   a. It is less likely to be abused.
   b. Repairs are made as soon as needed.
10. There is better control of food.
    a. Supervised serving eliminates waste.
    b. There is no lunching on wards.
    c. No ice box is present in which to tuck away extras.
    d. Trays served visitors must be accounted for and charged.

11. Better control of waste is provided.
    a. Returned food is checked.
    b. Trained scrapers seldom throw silver in garbage.



In 1927 Ward Kitchen Service was in effect.
In 1928 Central Service was installed gradually.
In 1929 Central Service was in effect.

12. Actual economies are produced in:
    a. Food costs. (For the twelve month period following the

installation of central service, 1928–1929, raw food costs were reduced $.09 per person per day as compared to the year 1927 when ward service was in effect. The actual figures are from $.62 in 1927 to $.53 in 1928–1929.)

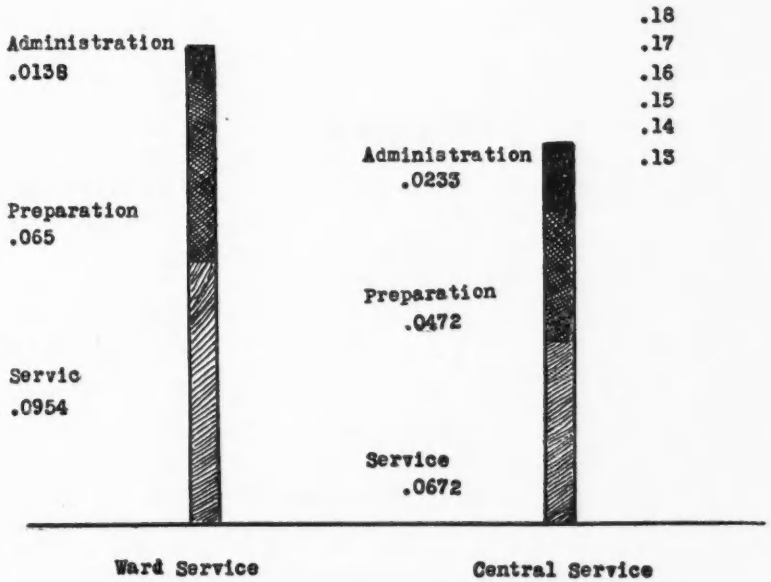
b. Breakage.

1. China breakage averages $.0045 per patient per day. A good grade of china is used, and chipped or cracked dishes are discarded.
2. Total breakage averages $.009 per patient per day, yet very thin long stemmed glassware is used.
3. This low breakage is the result of:
   a. Careful supervision of help.
   b. Efficient planning of serving stations, reducing the number of accidents.
   c. Very short distances trays need to be carried on floors.

Comparison man hours labor per person served per day

	WARD SERVICE—JANUARY 1927		CENTRAL SERVICE—JANUARY 1929	
	hours		*hours*	
Man hours labor:				
Administration	732		1,456	
Preparation	3,922		4,546	
Service	7,078⅓		7,737	
Administration, preparation and service	11,732⅓		13,739	
Total number of service days	20,549		25,163	
	IN HOURS	IN MINUTES	IN HOURS	IN MINUTES
Per person per day:				
Administration	0.0356	2.136	0.0578	3.468
Preparation	0.1908	11.448	0.1806	10.836
Service	0.3444	20.664	0.3074	18.444
Administration, preparation and service		34.248		32.748
	These figures do not include serving of patients' trays or the preparation and serving of nourishment, all of which was done by nurses under ward service.		These figures include serving of patients' trays and the preparation and serving of nourishments.	

c. Labor costs. (Although several salaries have been increased, labor costs have been reduced from $.1744 to $.1380 per person served per day. These figures include all labor required for administration, preparation and service of all meals and all between-meal nourishments for twenty-four hours. The entire salary of all employees in the Food Department is included, no consideration being taken of time spent in teaching, etc.).



COMPARISON OF THE PER CAPITA LABOR COSTS IN THE FOODS DEPARTMENT, ALBANY HOSPITAL, FOR THE MONTH OF OCTOBER, 1927, UNDER WARD SERVICE AND THE MONTH OF OCTOBER, 1928, UNDER CENTRAL SERVICE

13. An unusual kitchen interests the public and is good advertising for the hospital.

The following points are to be considered in relation to central service:

1. Coöperation of other departments with the dietary department is imperative.

2. To secure coöperation, the dietary department must maintain a high standard of service which is possible only when efficient equipment and reliable help are provided.

3. Central Service works most efficiently where it is possible to standardize the majority of the diets.

THE TRAINING OF STUDENT DIETITIANS

MARY W. NORTHROP
Dietitian, Montefiore Hospital, New York City

It seems time for all of us who are training dietitians for hospital work to take stock of our standards. Are we giving our students the best possible preparation for their hospital work? If not, how can we expect to have assistants, co-workers, or successors who have a proper background or hospital training? That there is need to improve some of the present standards seems evident. Too many hospitals have been in the habit of accepting student dietitians because of the supposed economy of such student labor. As a matter of fact, this idea is probably erroneous unless students are to be used as maids. The average student is probably as efficient in doing manual labor as the average hospital maid, but in the actual dietary work of the department, one good assistant can replace two students. Her salary is partly offset by the cost of maintenance of an extra person, by the cost of constant change in student personnel, and also because of the close supervision which students need.

The hospital which trains students undertakes a two-fold obligation—that of supplying the community with the best possible dietitians, and that of repaying the student fully for her time and effort. Student dietitians should be accepted only with this obligation in view. They need not be a liability to the hospital, but they should not be considered solely as a financial asset. The ideal procedure is to give a course so arranged that the value of the work which the student does for the hospital balances the cost of her maintenance and instruction.

That this conception of the purpose of a course for student dietitians is not the one generally held can be illustrated by instances found on every side. A few such will suffice. In one hospital a short time ago, each student was expected to spend two months in the diet kitchen setting up special diet trays and cooking the food to be used in these diets. In the same diet kitchen pupil nurses were expected to become proficient in the same work in three weeks. The student dietitian spent two months calculating routine diabetic diets and two months supervising the work of pupil nurses in the diet kitchen. At the end of her course, she knew nothing of administrative dietetics, nothing of the organization

of the hospital outside of the diet kitchen, nothing of the patients. It is interesting to note that at the present time, stimulated partly by the publication of the standard requirements, this hospital has so broadened and improved its course that it was included in the accredited list published last year. The point of view of too many hospitals, and unfortunately, also, of too many dietitians, was expressed by a young dietitian when informed that a prospective position was more than one person could manage. Her reply was "If I find that I can't do it all, I'll get a student."

Transforming a recent home economics graduate into a hospital dietitian entails giving her the right point of view as well as teaching her to put into practice the principles of quantity cookery and the keeping of time books. We must take the college girl who comes to us and make her into a professional woman; that six months is too short a time in which to accomplish so complete a metamorphosis is obvious. It seems probable that we shall be forced either to increase the length of our courses or to demand that the colleges send us more mature and competent students.

Another problem which we should be considering is that of giving our students an interest in their surroundings outside the limits of the dietary department. Many dietitians, engrossed in their own problems, fail to see their work in relation to the rest of the hospital and lack sympathy and appreciation for other groups who are also working for the well-being of the patients. The more we teach our students about the hospital as a whole and the dietary department in its relationship to the whole, the more successful they will be in working with other groups. We are often justly criticized for making unfair demands on the other services of the hospital that demonstrate a lack of understanding of their problems. We expect others to understand us, to know why we cannot do certain things and why we do others. We expect them to know our busy hours and our off hours—but we pay little attention to theirs. My own diet kitchen staff is intensely annoyed when the wards call in at serving time to tell us of matters which could have waited, and yet not until it was called to our attention did we realize that head nurses are busiest before nine in the morning, and would prefer not to be called to the telephone then except on matters which are urgent. An understanding of their work enables us to give our co-workers more consideration and they will seldom fail to give us more coöperation in return. Besides, most of our students will profit by developing broader points of view. The wide field of hospital administration and organization, the theory of nursing education, the possibilities for the therapeutic education of the patient, and laboratory

research and clinical medicine as they affect the patient offer fascinating possibilities for observation as well as for study. There are a hundred other paths of information to follow on any day in any hospital. A thorough knowledge of the organization of the particular hospital in which one is working would seem to denote only a normal interest, yet I knew a dietitian, head of her department, who, when questioned as to the bed capacity of the hospital, did not know. A second visitor, having heard the story from the first, asked her the same question a month later, and found that she had not been interested enough to inform herself on the point.

We are not successfully teaching our students how to manage patients. It takes an interne a year or two and a nurse three years to learn this, yet we attempt to teach the same thing in a small fraction of a six months' course. It is a technique which many of us never practice enough; we must be careful to give our students as much contact as possible with patients so that they may learn something of the psychology of the sick even in the limited time at their disposal. We cannot insist that the student familiarize herself with the social and medical history of every patient, but must content ourselves with assigning studies of particularly interesting cases to each. We can, however, see that our whole department develops the habit of thinking of the patients as personalities rather than as trays or room numbers. If we can stimulate this point of view in students, we shall have taken one step toward making the hospital a less chilling place in which to be sick.

Our present conception of diet in disease as a modification of the normal diet makes us more conscious of the fact that we are treating the patient as well as the disease. His normal requirement for calories, protein, minerals, and vitamins must be considered as seriously as the need for certain dietary limitations in meeting his specific condition.

In studying patients, students should be made familiar with all the various agencies which enter into their treatment. They should learn that medication, nursing care, special treatments, and diet, go hand in hand, and that no one is complete without the others. They should learn to read charts and to think of laboratory findings as a gauge of progress. They should learn the common terms used in writing orders, charts and laboratory findings in a hospital.

Not the least of the things which a student dietitian must learn is the code of ethics and etiquette which she finds in her new surroundings. Hospitals are very different from a university campus, and the student will be saved much embarrassment if some of the differences are explained to

her. She may be given a brief printed sheet which explains a few of the outstanding points, such as: given names are not to be used on duty; the hospital is an organization of semi-military type in which a system of rank and precedence is maintained; social conversations are out of place on duty. We find it easier to give these directions in printed form because it seems more impersonal; if the student has the printed sheet in her possession, one can reasonably expect her to remember the information which it contains. These directions are given her on the day she enters the hospital, before she has the opportunity to make mistakes. She has been previously told what uniform to purchase and how to wear it, so that we are assured that she will have a professional appearance. We find that she will then be likely to live up to her uniform, and that other people whom she meets in the hospital will expect her to do so. We are not nurses, and there is no reason for our adopting their customs except as we find they fit our situation; we are a recent addition, still trying to find its own right place in the hospital group. The student who has innate dignity and courtesy will find that they stand her in good stead; the one who has not needs more than anything else to be taught just that—dignity combined with courtesy, and friendliness combined with reserve. It goes without saying, of course, that more important than the code of etiquette that she must learn, is a code of ethics which must follow the best traditions of both medicine and nursing.

When we measure the distance we still have to travel in reaching our present ideal of student training, and when we consider that this ideal will probably advance before we are near enough to grasp it, the goal seems very far away. There is all the more interest, then, in the game, because it is not too easy. As a matter of fact, when we look back over the way we have come, we may well cease to be pessimistic. We have already gone a long way and we have travelled surprisingly fast. The fact that we are continuously thinking and talking about the problem will accelerate our speed.

CAFETERIA MANAGEMENT IN LARGE HOTELS

MARGARET G. BROWN

Cafeteria Manager, Hotel Statler, Detroit, Michigan

Cafeteria management in hotels is fast opening its doors to home economics graduates and dietitians. While there is considerable satisfaction in being one of the staff of a large organization, there are also a good many problems. Perhaps the greatest of these is that, as a general rule, the hotel cafeteria manager does not make out the menus, although she may suggest the salads. Menus are planned by the hotel chef, who with his staff often thinks of the cafeteria as merely a place to use the left overs. However, with proper coöperation between the manager and the hotel executives, an adjustment can be made, and the manager of the cafeteria may be allowed to assist the chef in the menu-planning for her department.

She has another problem to cope with, in that she has to sell food prepared under the various chefs' supervision and is not usually permitted to instruct and supervise in the preparation of new recipes.

Without the above responsibilities, one might well ask what she does do. First let us think of the care of the equipment and furnishings of the cafeteria, such as floor covering, linen, trays, china, tables, chairs, lighting fixtures, labor saving machinery, etc., and the methods used in keeping these in proper condition, for which the manager is held responsible. She trains her employees to report immediately any necessary repairs, so that she in turn may report to the department in charge of repairs. She also achieves close supervision by means of a thorough weekly inspection of all corners and nooks, by semi-yearly inspections made with the manager, steward, and engineer of the hotel, all these inspections being written up and suggestions followed by the various departments concerned. Linen, silver, glass and china are kept up to standard by quarterly inventories prepared by the cafeteria manager and checked by the auditing force.

The cafeteria manager must think of the counters and their arrangement, according to the allotted space, which, of course, is often limited and may not allow the use of the double counter nor open square, but must be a single counter separated from the tables. In this latter arrangement,

we generally find the trays first, then the salad counter, which gives a better appearance if it is the solid ice counter type rather than that using loose ice. Both the manager and her assistants must spend a good deal of thought on the appearance of this counter, with reference to the right color combinations, food values of salads, and proper service, since most hotels have standard instructions regarding portions and dishes to be used. Then too, the counter must not be crowded.

The bread counter comes next, as a rule, followed by the pastry counter and then the steam table, which needs the most supervision by the manager during meal service, as it is necessary to be constantly rearranging the food to have it sell. The vegetables must be freshly cooked and arranged with a certain color scheme in mind. If possible, it is always well to have fresh spinach with either beets, carrots, or tomatoes for the contrast in color. The manager must also consider certain vegetables for persons on special diets. The meats and entrées can often be changed to more advantageous locations on the counter, if not selling well. One should generally find the ice cream and the beverages beyond the steam table.

Of equal importance in the arrangement of the counter is the requisitioning of prepared foods from the kitchen in proper amounts, and of staples from the store room. Also necessary is the making of a daily percentage between the purchases and sales, thus making the manager directly responsible for the selling prices, to be checked from day to day.

A knowledge of personnel management must be applied in choosing assistants. Following are a few of the points and qualifications an assistant should possess: Home Economics training, followed by student work in a hospital; knowledge of elementary psychology and ability to apply it in handling the employees and the dissatisfied guest; interest in the public and a desire to serve and please them; wholesome and neat appearance and, desirably, perfect health; a keen interest in detail. In hiring the counter help, short order cooks, bus and pantry boys, and dishwashers, the manager of a cafeteria in any large city has quite a problem before her; as a rule her best prospects are friends of other employees. Of course, all contact employees must speak English.

The training of the employees is another duty of the manager, and is usually more efficiently accomplished by issuing pamphlets, containing general rules, to each new employee. Individual duties can be outlined and presented to new employees, who must be constantly supervised for a day or two by an old employee or an assistant manager. The manager may also supplement this primary training by semi-monthly

meetings, outlining again the policies of the hotel by means of bulletins or other publications. Demonstrations may be given by old employees in methods of doing detail work. The manager may also discuss foods and their sources, food values and methods of preparation, so that the employee will be able to speak intelligently to the guest about food. These meetings offer an opportunity to teach salesmanship; the manager should emphasize that her help remember the likes and dislikes of their guests, be able to make suggestions to the bewildered new comer, and scan the guest's tray to see if he has remembered minor items such as butter, salad dressing, etc.

If the manager is allowed to help the chef with the menus, these are a few of the things she must keep in mind: foods on hand, market conditions, counter space, time of the year and week, types of conventions booked (whether men or women delegates), regular guests, variety in prices, people on special diets, and different religious creeds.

Some cafeterias are now catering to special diet requirements and generally charge a small sum for this extra service. Of course, the preparation of these special diets should only be done under the direct supervision of the manager or her trained assistant. This recent development may in turn offer an opportunity for the dietitian to establish herself further in the hotel world.

EDITORIAL

Two Trails in a Changing World

The present consensus of opinion seems to be that to follow Arnold's injunction to "see life steadily and see it whole" would be most difficult in these days when all phases of social and economic life appear to be changing so rapidly. The critics and prophets of today are urging adaptability to a changing world rather than a philosophical detachment. In speaking on the subject of "Woman and the Changing Order," before the recent convention of the American Dietetic Association, Margaret Justin, President of the American Home Economics Association, summarized woman's indebtedness to the changing order of the world in these terms: "In former days woman's world was largely bounded by the confines of her home. Her economic fortunes were bound with those of her family; her social activities were determined by the family interests and her educational opportunity was limited by the social customs of the time, as well as by economic pressure.

The coming of the Industrial Revolution changed these matters. . . . . Economic independence of the individual came to be as important as had been the economic independence of the home. . . . .

With the bugaboo of the mental inferiority of woman dispelled and her ability established, justification for the restriction of woman's activity through social customs is past. This is attested to by the marked impetus in woman's education, by the opening of new fields for women in professions and industries, and by her participation in political and social movements of the time.

Occasionally there comes a man or woman who makes of woman the scapegoat for poor thinking, poor teaching, poor research, poor morals, vapid living. Such assaults are interesting, irritating, but neither damning nor lasting. With the changing order will come clear thinking that will evaluate an individual on the basis of his worth rather than his sex. There will probably always be some inefficient women just as there will probably always be some inefficient men. An enefficient man today does not bring an indictment of his sex, and surely the time will come when all women will not be damned because of the poor work of a few inefficient women. While we await with interest and keen desire the

development of intellectual honesty that will bring this end, we can take stock of the time and note with encouragement the advance made. Certainly from the changing order has emerged a freedom to seek satisfaction and self-expression in activities in common with other humans to a larger extent than women have ever before known."

As well as the benefits gained by women in the changes of the present, there are certain obligations to which she should adjust herself. Dean Justin says: "If women, like men, are impelled by economic pressure and an inner urge to seek satisfaction and self-expression in work outside the home, their presence in that work does not imply that an air of sanctity will pervade that occupation or that the kindly sentiments that have been fixed as an aura about the women in the home will hover about her in her profession. In other words, woman is at work as a *person*. In a group of women persons there will very probably be the same degree of variability in character traits and attitudes that there would be in a group of men persons. There is no strange virtue in women as women that can make a contribution to the changing order. Those virtues which can contribute to progress are the characteristics which would make any and every individual possessing them of value in our present social organization. Enumerating these briefly we may list first, *maturity*. . . . . In as complicated a civilization as ours, contributions can come from those who have attained to emotional maturity and stability. There are those who, while granting intellectual equality to women, hold that she is inherently emotionally unstable. So particularly upon the women of this era falls the task of demonstrating that in all phases, maturity in its fullest sense can be theirs. Not infrequently a worker (often a woman) transfers to her work the interests and enthusiasms that should have developed a well rounded life. Unfortunately, rather than promoting the growth of her work this leads to distorted perspective of value, personality clashes and bickering with associates over inconsequential things. Perhaps included under maturity, but of importance enough to be considered alone, is the willingness to maintain an impersonal attitude towards one's work and one's associates. In fact, an adult perspective on life is essential, not only for straight thinking and successful human contacts, but is also one of the most important characteristics if an individual is to contribute to the changing order."

The woman of today, aware of the privileges and obligations with which the modern world endows her, is keenly interested in the outstanding phase of the present culture—the development of science. Dr. W. D. Henderson, Director of University Extension of the University of

Michigan, mentioned some of the aspects of this in his address, "Modern Science and the Changing Order," given before the Association at its last convention. He vividly described the existing economic situation of Europe and Asia in its relation to America, who is converting all the advances of science to the most practical uses, emphasizing machine work, mass production and other predominantly American processes. As the industrial systems of other countries are being patterned after that of America, the natural result will be an enormous increase in the output of goods and a terrific struggle for the markets of the world. Dr. Henderson outlined the relationship between this changing industrialism and science as we know it now. "Science gives us at any moment the most rational explanation of the universe possible in terms of our experience. When our experience changes, therefore, our science changes. We used to think of the laws and principles of science as fixed. We now know that they are relative. . . . . that the atom is not a solid particle of matter; it is something like a little solar system with a positively charged nucleus around which rotate the electrons. And who dares say that the electron is the ultimate particle of matter? It is the smallest unit we know today, but tomorrow a smaller one may be found. In the second place, I wish to emphasize the fact that whenever we have a new scientific experience, immediate change is likely to occur all along the line. For example, think what the discovery of the electron has done for the world. . . . .

We speak frequently of the accuracy of science. It is important, however, that we should have clearly in mind an understanding of the significance of the term 'accuracy' as applied to science. We speak of mathematics as being the most exact science; physics comes next; chemistry next; and so on down the line to biology, psychology and sociology. Upon what does the accuracy of a given science depend? It depends somewhat upon the instruments available and somewhat upon the individual skill of the manipulator. But as a general thing the accuracy of a science is determined by its fundamental presuppositions. For example, mathematics is the most exact science because mathematics is based upon two fundamental concepts, namely, time and space. . . . . Physics, which comes next, is not quite so exact as mathematics, since this science is based upon three fundamental concepts of time, space and energy. Where the mathematician has two fundamental concepts to keep in mind, the physicist has three. . . . . The chemist . . . . talks of molecules and atoms and electrons; . . . . the biologist talks about cell-structure and protoplasm, chromosomes and centrosomes, and as a

result he is more or less in the dark. Biology, we say, is not an exact science. . . . . Thus, we see that the exactness of a science does not necessarily depend upon the skill of the men who work at the job. The more fundamental concepts involved, the more complex the science. And the more complex it becomes, the less accurate it is. . . . .

The science of dietetics, if there be such a science, is far down in the line. Your subject involves physics and chemistry, biology and psychology. The very fact that there are so many fundamental concepts involved introduces an element of inaccuracy and an element of uncertainty. Whenever a new discovery is made in physics or chemistry, you are compelled to change some of your ideas about food and food values. . . . . Keep in mind your position in the order of scientific subjects and, being conscious of the fact that change is the order of the day, do not become discouraged when some of your theories have to be thrown over. Console yourselves with the thought that even such stable sciences as mathematics and physics are subject to the inevitable laws of change."

It is to be expected that, considering the adjustments women have made to a new industrial and economic world, the group who interest themselves in science and sciences, having become adapted to new conditions, will be leaders in this changing and growing science.

A Lesson in Orthography

It seems timely that a specific term be decided upon for the purpose of designating the occupation of women engaged in the science and art of feeding people. At the recent annual meeting, Helen Clarke, dietitian of the Blodgett Memorial Hospital, Grand Rapids, Michigan, outlined the historical background of the word *dietitian* and synonymous terms.

Our professional organization probably had its origin at the first Lake Placid Conference on home economics in 1899. From this conference grew the American Home Economics Association, the parent of the American Dietetic Association. At the meeting of the Conference in 1900, Miss Maria Daniell gave a report on hospital dietaries. In 1904, the courses in dietetics given at the University of Wisconsin were reported. In 1905, Mrs. Ellen H. Richards commented on dietary calculations, but it was 1906 before a specific professional designation appeared on the records. At this eighth annual meeting of the Conference, "The dietitian: need of, and training," was discussed by Miss E. Grace McCullough. References were made to the three months' summer courses given in New York for students from Pratt, Drexel and Teachers College.

In the discussion of this work by Miss Mary Schwartz (Dr. Mary Schwartz Rose) and Miss Lenna Cooper, the words *dietist* and *dietician* were used. At the same meeting the report of the committee on training used the term *dietician*. In 1908 Miss Nutting used the word *dietitian* and the same term is observed in other references.

Despite the fact that the preferred spelling in England is *dietician*, the form customarily used in American is *dietitian*. It is interesting to note that the standard dictionaries favor a terminology generally unused by the profession.

Going back ninety years to Hooper's Medical Dictionary, 1839, *dietetics* is defined as a branch of medicine, but no designation is given for one who specializes in this therapy.

Tracing the term through five editions of Gould's Medical Dictionary, covering the last thirty-seven years, we find that in the 1897 editions, a *dietarian* is defined as a physician, and *dietetist* as an expert *dietarian!* Neither word appears in the 1905 edition, but *dietarian* reappears in 1908 while *dietetist* disappears. *Dietitian* is first used in 1916; in the 1928 edition it is listed as secondary to *dietist*, while a *dietarian* is defined as a physician who pays special attention to matters of diet.

Dorland's American Illustrated Medical Dictionary, 14th and 15th editions, 1927 and 1929, give the spelling and definition as follows: "*Dietitian*. On who is skilled in the scientific use of diet in disease." Stedman's Medical Dictionary, 10th edition, 1928, uses the same term, defined as follows: "*Dietitian*. An expert in dietetics; one versed in the practical application of diet in the prophylaxis and treatment of disease."

One concludes that there is a definite trend toward uniformity, and acceptance of the term, *dietitian*, most commonly used by members of our profession.

The Dietitian in Schools and Colleges

The girls' boarding school and college stories popular with growing girls, have through the years done much to glorify the clandestine midnight spread, made possible by what Dr. Clarence W. Lieb in a recent issue of the *Woman's Home Companion* calls "those devastating Boxes from Home." The habits of continuously munching between meals and eating little at the table have been tending, says Dr. Lieb, to make the college and boarding school girl subject to digestive disorders which she would avoid on a sensible dietary régime. He says the blame does not lie entirely with the girl, as in many dormitories an adequate diet may not be served at all or may be presented in such a manner as to make

it unpalatable. Many adolescent girls leave for school in the fall, radiant with health, and return home in June, complaining of constipation and colds and showing evidences of loss of weight and anemia. An investigation is much more likely to show that the causes are the school table and bad dietary habits, rather than overwork.

Dr. Lieb's suggestion is that every boarding school and college should employ a trained dietitian. That would seem to go without saying. Yet, wondering what the general practice was, Dr. Lieb wrote to a number of colleges and schools. He found a wide variation in the question of dietary management. Several replies read to the effect that "We do not have a school dietitian but all menus are very carefully supervised by myself and a good deal of care is given to the problem of nutrition." The boarding schools showed a general tendency to want to do the right thing, even though they were puzzled as to what it was. At the colleges less notice was paid to the matter, as such attention seems to be very difficult in large colleges. At Ohio State and the University of Wisconsin the dormitory menus are planned by a dietitian; at many other colleges the menus are approved by dietitians, physicians, or a conference committee on food. Naturally, a large number of students do not eat in the university dining rooms, so that the question becomes more extensive and requires the need of teaching the students what they should eat. At Wellesley a conference committee of authorities meets once a month with the food committee of the heads of houses. The services of a dietitian are offered to the dormitories and house clubs of the University of Michigan. Education in diet is presented through the freshman course in hygiene at Smith. Also at Barnard this work is done through the required hygiene course. The class is divided into three groups—normal weight, underweight, and over-weight. A clinical study of the frequency of such ailments as headaches, constipation and minor colds is made, and is followed by office nutrition consultations.

Dr. Lieb tells more of the work that is being done in various schools and colleges and suggests steps which may be taken in the future. The possibility of a doctor's writing to the school dietitian, outlining the need of certain foods for a pupil, is mentioned. As dietetic fads are among the most striking of current phenomena in girls' schools, the need of wise guidance is most evident. Dr. Lieb's article is timely and suggests another area of the ever-widening field for dietitians.

O. F. O.

BOOK REVIEWS

Bodily Changes in Pain, Hunger, Fear and Rage. Second Edition. By Walter B. Cannon, M.D. Price $3.00. New York: D. Appleton and Co., 1929, pp. 392.

Quite the entire biologic perspective from the chemistry of physiology to the psychology of mind-body relationship, is reillumined by this new edition of Cannon's classic. In the decade and a half since its first appearance, arrays of new evidence accumulating in the Harvard laboratory and from abroad have been assimilated into the plan of this work, "bearing on the general thesis that the bodily changes which attend great excitement are directed towards efficiency in physical struggle."

One new chapter of especial interest to dietitians is that on the emotional derangement of bodily functions. Lack of emotional balance is often accompanied by alimentary disorders—"the whole digestive process, which is subject to check by the sympathetic system, may be profoundly deranged by anxiety and distress," and then "any [digestive] disturbance . . . may have widespread ill effects in the organism." The neural rôles mediated by the cerebral cortex, and by the thalamic centers in the brain-stem, are simply and convincingly set forth. The author further explains recurring or persisting bodily dysfunctions in terms of Pavlov's conditioned reflexes.

A chapter on the physiological basis of thirst analyzes the pathogenesis and therapeutics of the group of sensations comprising it, as they arise under the influence of drugs, emotions, glandular disorders, or ordinary deprivation.

Two additional chapters on theories of emotion are of basic importance. Inadequacies of the James-Lange theory have become progressively more patent. Cannon stresses Wells' (1925) finding of short latent periods for certain affective reactions, shorter than the latent period of smooth muscles or glands plus the time required for neural impulses to pass from brain to viscera and return. "Organic changes could not occur soon enough to be the occasion for the appearance of affective states . . ." The well-marked and typical bodily changes following epinephrine injections alone, do not provoke a recognizable emotion. It is in the functioning of the optic thalamus that one discovers a *sine qua non* to the eventuation of an emotion's peculiar quality.

JAMES H. HUDDLESON, M.D.

Eat and Be Happy. By Josiah Oldfield, Lady Margaret Hospital, Kent, England. Price $1.50. New York: D. Appleton and Company, 1929, pp. 115.

Dietitians will find many amusing and illuminating bits of information in this little volume, such as "The misery in children is caused by what their parents ate before they were born and also by what their father and mother eat today"—thus explaining the dictum of the old prophet who said, "The fathers have eaten sour grapes, and the children's teeth are set on edge."

Further we learn that "A large use of legumes is to be avoided," since their high protein content contains "an obscure element which acts as an excitant upon the procreative cells." According to the author, a "youth at the exploding point of self control" may be described as being "full of beans".

The ability to keep "the innocent beneficient bacilli quietly happy in the lower intestine and busily occupied in breaking down cellulose into absorbable food is again largely a matter of food." It is the decaying matter from broken-down animal protein "which acts as an excitant and irritant to the harmless inhabitants of the intestine, which transfers them into restless disease-carrying wanderers." In other words, one

should remember that these "kindly home-loving *bacilli coli*" must not be transformed into "fierce marauding nomadic disease-spreading germs." And so on, *ad infinitum*!

M. P. H.

The Science of Nutriton Simplified. By D. D. Rosewarne M. R. C. S. (Eng.) L. R. C. P. (London). Price $3.50. St. Louis: C. V. Mosby Company, 1929.

Dr. Rosewarne has given the average reader a simple and interesting explanation of the principles of dietetics.

The book is divided into four sections. Part I deals with the purpose of dietetics, the functions of food, and the chemical and physiological processes of nutrition. Part II is a study of the food requirements of the human body. Part III treats of the food substances which make up the diet, and Part IV considers the problem of suiting the food to the needs of the individual who is to use it.

It is true that this book is not designed as a text for nutrition students, but it does provide the lay reader, having some basic knowledge of chemistry, with the fundamental scientific facts of dietetics.

E. L. F.

Practical Handbook for Diabetic Patients. By Abraham Rudy, M.D. Price $2.00. Boston: M. Barrows and Company, 1929.

This is an excellent handbook for the clinic patient who cannot understand medical terms and who has difficulty in weighing out the diet. It has an unusually clear and practical outline of the principles of dietetics and nutrition, followed by a brief summary of diabetes, its causes, symptoms, needed dietary alterations, and the treatment of the possible diabetic complications.

Directions for urinalysis and insulin treatment are clear and concise. Special attention is given diets for children and travelers and for use in diabetic emergencies.

An excellent series of diagrams of comparative food values is included in the text. This is followed by substitution charts, showing equivalent values of various food-stuffs in terms of household measures, compared with a given weight carbohydrate. These charts are of real value to the foreign-born patient, as the equivalents are listed in terms of his native foodstuffs. Charts and recipes are given for diets for Jewish, Italian and Armenian patients. Dr. Rudy has made a real contribution in adapting diabetic treatment to the needs and tastes of some of the immigrant races of American and also to the kosher regulations of the Jews. Other features of the book should prove most useful for physicians and for diabetics in general.

E. L. F.

CURRENT LITERATURE

KATHLEEN M. LEWIS

American Journal of Diseases of Children

Vol. 38, July, 1929

Carbohydrate tolerance in infants and in young children with celiac disease. A. B. MacLean and R. C. Sullivan.—p. 16.

*Beriberi in infants. J. I. Waring.—p. 52.

The unusual association of postinfantile rickets with osteomalacia. G. M. Blank and G. W. Graves.—p. 84.

*Sickle cell anemia in a Greek family T. B. Cooley and P. Lee.—p. 103.

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The management of the ambulatory diabetic child. W. S. Collins and H. G. Grayzel.—p. 275.

*Basal metabolism in children of abnormal body weight. A. Topper and H. Mulier.—p. 299.

*Organisms associated with commercially prepared infant foods. G. J. Hucker and M. A. Hucker.—p. 310.

The acidosis of acute diarrhea in infancy. B. Hamilton, L. Kajdi and D. Meekes.—p. 314.

*The treatment of juvenile diabetes. A. E. Fischer.—p. 323.

Vol. 38, September, 1929

*Epilepsy in children: The relationship of water balance to the occurrence of siezures. I. McQuarrie and C. M. Husted.—p. 451.

*Metabolism of undernourished children: The effect of high and low protein diets on the excretion of creatine, creatinine and ammonia. C. C. Wang and M. Kauscher.—p. 468.

*Metabolism of undernourished children: A study of the basal metabolism, caloric balance and protein metabolism during a period of gain in weight. C. C. Wang, R. Kern and M. Kauscher.—p. 476.

Rickets in chicks: The effect of heat and exposure to air on the stability of vitamin D. G. F. Heuser and L. C. Norris.—p. 481.

Blood cholesterol in diabetic children. G. L. Boyd.—p. 490.

*The influence of ultraviolet rays, yeast and irradiated yeast on the sugar tolerance of diabetic children. H. G. Grayzel, W. S. Collins and M. R. McKenzie.—p. 513.

*Constipation and behavior. I. S. Wile.—p. 570.

Beriberi in infants. Although an authority states that no case of an infant affected by beriberi has been reported in the United States, and recent articles reiterate that beriberi does not appear in infants in this country, cases have recently been reported in which the symptoms presented appear to be the same as those described by writers familiar with the disease as it occurs in infants in Japan and elsewhere. Symptoms have been described which were attributed to a partial deficiency of vitamin B in the diets of infants. Cases, such as have been reported, not infrequently occur in this country, particularly among negroes, whose ideas of feeding infants are usually vague and inadequate.

Sickle cell anemia in a Greek family. In an examination of specimens of blood from a Greek family, elongated forms, not typically sickle cell, yet so like some observed in sickle anemia as to arouse suspicion, were seen. So far these are the first observations of definite sickle cell anemia in subjects regarding whom no reasonable suspicion could be raised of an admixture of negro blood.

Basal metabolism in children of abnormal body weight. The majority of overweight but otherwise normal children have a normal basal metabolic rate, tending toward the upper limits of normality. The majority of underweight but otherwise normal children have a normal basal metabolic rate, with a decided tendency toward the lower limits. In children becoming increasingly underweight, there is a greater lowering of the basal metabolic rate.

Organisms associated with commercially prepared infant foods. Recently there has been considerable discussion among pediatricians and laboratory workers as to the sanitary quality of certain of the prepared infant foods appearing on the market.

Examinations of a representative series of samples of prepared infant foods revealed practically no hemolytic streptococci.

The treatment of juvenile diabetes. Restrictions of the diet, and the injection of insulin, constitute the only means by which diabetic children can be brought to adult life. Standards for the calculation of diets vary, but there has been sufficient evidence to justify a more liberal amount of carbohydrate than has formerly been advocated. The general health and appearance of these children are excellent. The majority are about ten per cent under normal height for their age, but their weight is, in most instances, normal or slightly above normal for their height.

Epilepsy in children. The relationship of water balance to the occurrence of seizures. Procedures, such as fasting, a ketogenic diet, rigid restriction of fluid intake, and the administration of large doses of acid-forming salts, favor the prevention of seizures and also have the effect of dehydrating the tissues. Increase of water intake causes recurrence of seizures. A disturbance in water balance, perhaps affecting the central nervous system more specifically, appears to be closely identified with the etiology of epilepsy.

Metabolism of undernourished children. The effect of high and low protein diets on the excretion of creatine, creatinine and ammonia. The excretion of creatine, creatinine and ammonia in undernourished children per kilogram of body weight is slightly higher than that of children of normal weight. The creatine output is directly proportional to the nitrogen intake, therefore there is a constant relationship between protein intake and creatine output. The creatinine output is dependent on body weight and is independent of protein intake. The increased production and excretion of organic acid in undernourished children may account for the higher excretion of ammonia.

Metabolism of undernourished children. A study of the basal metabolism, caloric balance and protein metabolism during a period of gain in weight. In a study of undernourished children, their basal metabolism was found to be apparently normal; their absorptive power was equal to that of normal children; the retention of nitrogen was found to be greater than that in normal children; and as these children approached normal weight, the retention of nitrogen decreased.

The influence of ultraviolet rays, yeast and irradiated yeast on the sugar tolerance of diabetic children. Ultraviolet rays, yeast vitamin B and irradiated yeast, when administered over a period of from four to seven weeks, fail to produce any significant improvement in the sugar tolerance of children with diabetes.

Constipation and behavior. Constipation should be regarded as a symptom and not as a disease entity. It has comparatively little specific effect on intellectual activity and only a slight effect on physical vigor. The attitude and social implication are far more important factors. Social physiology is responsible not only for induced evacuations but for a large assortment of symptoms dependent on oversolicitude for intestinal action, and an astigmatic mental attitude toward what should be a simple physiologic phenomenon. A distortion of the social meaning of the biologic act has resulted, and these very efforts at inducing social conformity, such as the cathartic habit which is established on the basis of social necessity rather than on biologic demand, is responsible for the existence of much constipation.

American Journal of Public Health

Vol. 19, July, 1929

*Evaporated milk and its relation to public health. F. E. Rice.—p. 777

Vol. 19, August, 1929

*Outbreak of botulism, Westfield, N. Y. E. Clark.—p. 885.

*Iodine in water, food and urine. H. W. Clark and G. O. Adams.—p. 898.

Vol. 19, September, 1929

*Iodized salt. W. C. Geagley.—p. 991.

Two milk borne septic sore throat epidemics. P. B. Brooks.—p. 1009.

*The iodine content of foodstuffs. Editorial.—p. 1027.

Vol. 19, October, 1929

*Endemic goitre and its relation to iodine content of food. J. A. Hayne.—p. 1111.

Evaporated milk and its relation to public health. Evaporated milk has proved safe and dependable. Necessary precautions are taken to keep the milk pure and free from harmful bacteria; it is not "touched by human hands" in the preparation. Evaporated milk is also satisfactory from the economic point of view in that it uses up the over-supply in time of plenty, and keeps it for times of greater need. It is also less expensive to ship than raw milk, as a large part of the water is removed. Evaporated milk has been found excellent for ice cream. It makes a low fat product suitable for use in warm climates and weather and is at the same time of good texture. The calcium and phosphorus are fully assimilable. Vitamins, with the exception of C, are present in the same amounts as in raw milk. Evaporated milk, because of the emulsification of fat, should prove acceptable to infants with deranged digestive functions.

Outbreak of botulism, Westfield, New York. In an outbreak, the result of a Christmas dinner, cases typical of botulism were observed. The symptoms generally noted were nausea and vomiting first, difficulty in articulation and deglutition, gradually growing worse, with difficulty in distinguishing objects. Pupils were dilated and gave sluggish response to light. There was marked muscular weakness. Accumulations of mucus in the throat could not be coughed up. One patient complained of abdominal pain. All deaths occurred within three or four days of illness following the meal consisting of freshly killed chicken, macaroni and cheese, bread, potatoes and green and yellow home-canned string beans. Laboratory examination of washings of bean can disclosed presence of *B. botulinus*. All who ate beans, even in small quantities, were ill and all died; those who did not eat beans escaped illness. With but one exception, none of the patients showed evidence of mental dullness or rise of temperature, but all had rapid pulse.

Iodine in water, food and urine. The introduction of iodine in water has been advocated by some as a public health measure to prevent or minimize thyroid troubles. Water from one hundred public water supplies in Massachusetts to which iodine had been added were found to vary in amount from none to 6.33 parts per billion. Analysis of samples of urine showed that about six times the amount of iodine found in the richest water passed through the urine. From this work it is evident that only a small percentage of iodine entering and passing through the human system is found in water, and it is probable that the introduction of iodine into drinking water is futile, as compared with wise selection and preparation of food.

Iodized salt. Iodized salt was the first effective and generally accepted suggestion for the correction of iodine deficiency in the goitre prevalent district of Michigan. Chemical analysis of various brands of iodized salt which appeared on the market disclosed a wide iodine content variation that seemed unwarranted, and lessened the effectiveness of the iodized salt for the purpose intended. It has been demonstrated that iodine can be incorporated in a fairly uniform manner by means of a standardized method of mixing iodine and a uniform control procedure.

The iodine content of foodstuffs. An interesting study was carried on in 1928 by a commission created in South Carolina for the determination of mineral elements of food growing in the state.

The following results were determined: That vegetables grown in South Carolina contain 20 to 30 times as much iodine as those grown in California or Oregon; that vegetables grown in the Piedmont region are richer in iodine than those on the coastal strip; that green leafy vegetables give more iodine and vitamins than others; that root crops yield a good supply of iodine; that grains yield very little iodine; that a river 150 miles from the coast was found to be rich in iodine, thus dispelling the theory that iodine and other salts are obtained from

wind blown ocean spray; that nitrates from Chile were found to contain a minute proportion of iodine; and that where these were used as fertilizers the vegetables yielded little iodine and goitre was prevalent in the district, thus contradicting a former theory that these nitrates are a source of iodine and that foods rich in iodine also abound in iron, manganese and vitamins, as a general rule.

Endemic goitre and its relation to the iodine content of food. It has been suggested that a natural form of iodine is better than an inorganic form. Plenty of vegetables should be included in the diet as these are a natural source of iodine. Fish, oysters and other sea foods are also rich in iodine and should be eaten freely when in season.

Hospital Management

Vol. 28, July, 1929

How the dietitian may do her share to stretch the hospital dollar. M. E. Thornton.—p. 74.

Vol. 28, August, 1929

How Miami Valley Hospital serves 53,000 meals in a month. L. A. Bolender.—p. 30.

*How a requisition looks to those in charge of the supply room. L. Mayer.—p. 45.

The unit system in Budapest.—p. 74.

*Silverware cleaner contains poison.—p. 76.

Vol. 28, September, 1929

Is the importance attached to per capita cost justified? M. O. Foley.—p. 28.

Fresh fruits aid greatly in varying hospital menu. L. G. Graves.—p. 50.

Vol. 28, October, 1929

*Futility of comparing daily cost, alone, echoed by administrators. M. O. Foley.—p. 31.

Evaluating per capita cost after 14 years' study of hospital accounting. J. R. Howard.—p. 34.

Some errors in planning equipment of hospital kitchen K. A. Pritchett.—p. 78.

How a requisition looks to those in charge of the supply room. Since the supply department works under the difficulties of an enormous daily output and a limited staff, coöperation of all departments is essential. Requisition forms should be filled in accurately and should be signed. Specifications of needs, if possible with examples thereof, should be given. Dishes for credit and exchange should not be sent simultaneously.

Silverware cleaner contains poison. Serious illness of guests in a New York hotel gave rise to an investigation and disclosed the fact that cyanide was contained in a silverware cleaner. Insufficient rinsing of the silver resulted in the outbreak of illness, previously and erroneously considered to be due to food deterioration.

The futility of comparing daily cost alone, echoed by administrators. There is no justification for the use of per capita costs as the sole basis of comparison of the administration of two hospitals, owing to the lack of uniformity in the basis of calculation. The chief uses at present of per capita cost calculation are for comparison of different departments, and of one year's expenses against the previous year's in the same institution. This gives one some idea in comparing the service, economy, or efficiency of one department with another, and determines also if the hospital concerned is keeping its expenditures within bounds.

Journal of American Medical Association

Vol. 93, July 6, 1929

*The effects on human beings of a twelve months exclusive meat diet. C. W. Leib.—p. 20.

*Abolishing diabetic coma. E. P. Joslin.—p. 33.

A summer camp for diabetic children. A. E. Fischer and E. V. Green.—p. 58.

Some effects of faulty fat metabolism in diabetes. Editorial.—p. 34.

The mechanism of fat absorption. Editorial.—p. 37.

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The place of wheat in the diet. Editorial.—p. 119.

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*Aqueous extract of liver. W. B. Porter, J. P. Williams, J. C. Forbes and H. Irving.—p. 176.

The basal metabolism of overweight children. Editorial.—p. 199.

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*Chronic arthritis: further metabolism studies. L. T. Swaim.—p. 259.

Effect of the ingestion of fluids on the cardiac output. Current comment.—p. 288.

*Poisoning from methyl chloride used in domestic refrigerators. Current Comment.—p. 288.

Vol. 93, August 3, 1929

*Methyl-chloride poisoning from domestic refrigerators. A. H. Kegel, W. D. McNally and A. S. Pope.—p. 353.

Rectal administration of liver extract (cod). P. Reznikoff.—p. 367.

*Diet in gastrostomy. A. J. Guerinot.—p. 375.

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Diabetic coma. H. J. John.—p. 425.
Diet in tuberculosis. J. B. Hawes.—p. 452.
Yeast and irradiated ergosterol in the treatment of acrodynia. S. J. McClendon.—p. 455.
*Underweight and overweight in relation to vitality. W. R. P. Emerson and F. A. Manny.—p. 457.
Pellagra in Ohio. Current Comment.—p. 462.

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Diets for the identification of food allergies. J. Dale and H. D. Thornburg.—p. 505.

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*The value of liver and iron in the treatment of secondary anemia. C. S. Keefer and C. S. Young.—p. 575.
Anemia in pregnancy with recovery. P. B. Bland and L. Goldstein.—p. 582.

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*The status of the therapeutics of irradiated ergosterol. A. F. Hess, J. M. Lewis and H. Rivkin.—p. 661.

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*Desiccated stomach in the treatment of pernicious anemia. R. Cole.—p. 747.
An antianemic factor in dessicated stomach. E. A. Sharp.—p. 749.
Diet and growth. Editorial.—p. 770.

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Hyperinsulinism and dyinsulinism. Editorial.—p. 921.
Relation of iodine to the thyroid gland. Editorial.—p. 922.

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*A soy bean food preparation for feeding infants with milk idiocyncrasy. L. W. Hill and H. C. Stuart.—p. 985.
Acidity of the gastric juice. Editorial.—p. 990.
Regeneration of the liver. Editorial.—p. 993.

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The emptying of the stomach. Current comment.—p. 1064.
Food and the heart rate. Current comment.—p. 1070.

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*Do adults need vitamin D? K. Blunt and R. Cowan.—p. 1141.
*Committee on foods. Council on pharmacy and chemistry.—p. 1144.
Report on pernicious anemia. Council on pharmacy and chemistry.—p. 1144.
The antipellagric vitamin. Current comment.—p. 1149.

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Some aspects of carbohydrate metabolism in hepatic disease. I. S. Ravdin.—p. 1193.
*Protein digestion in infancy. E. Freudenberg.—p. 1208.
The influence of inorganic elements on blood regeneration in nutritional anemia. V. C. Myers and H. H. Beard.—p. 1210.
Diet in the etiology and treatment of sterility. D. Macomber.—p. 1213.
Distribution of vitamin D: Cod liver oil. K. Blunt and R. Cowan.—p. 1219.
Activities of the U. S. Food, Drug and Insecticide Administration. Editorial.—p. 1225.

The effect on human beings of a twelve month meat diet. Detailed studies of an exclusive meat diet on two subjects for a year were made, including basal metabolism tests, chemical analysis of the blood and the urine, and fecal bacteriology. A chemical summary showed that both lost weight. The caloric intake for Stefanson was 2,650 per day and 2,620 for Andersen. There was no decrease in physical or mental vigor. Both led sedentary lives. The heat tolerance was improved. There was no deterioration in the teeth and no variation in pulse, temperature or in sleep. The kidneys contained no albumin, casts, or blood at any time. The urea tolerance showed 100 per cent plus, which indicated the tendency of the kidney to hyperfunction in an individual on a meat diet. Roentgen examination of the kidneys before and after did not show any change in size. The chemical analysis of the blood showed little effect except for slight increase in uric acid and temporary lipemia.

Abolishing diabetic coma. Diabetic coma is an acute disease, due to omission of insulin or to inadequacies of the customary dose. The symptoms are nausea, vomiting, increasing restlessness and air-hunger. The urine contains sugar and acid. From ten to forty units of insulin are injected every half hour subcutaneously until consciousness is gained, respiration becomes normal and glycosuria decreases. One quart of salt solution should be given subcutaneously. The circulation should be stimulated. The stomach should be gently washed out so that the liquids will be retained.

Aqueous extract of liver. An aqueous extract of liver has been produced which is potent and remains constant when subject to those conditions common to therapeutic material in ordinary usage. Patients with similar degrees of anemia require varying amounts of the effective material found in

liver. The dosage must be regulated in keeping with the individual requirement.

Chronic arthritis. There is a tendency to low metabolic rates in chronic arthritis, irrespective of the type of arthritis present. The age and the sex of the patient has little effect on the metabolic rate. The metabolic readings are not changed by the activity of the disease nor does any one type of arthritis stand out as having characteristic variations in metabolic rate. Hyperthyroidism is not a characteristic of arthritis and thyroid, carefully given, has beneficial results. The chief improvement is in the circulation, muscle tone, weight, and vitality. Thyroid acts as a stimulant and stabilizer and the affected joints improve. Small doses of thyroid given over long periods of time have more effect in arthritis than doses which are near the point of tolerance. The dangers of over-stimulation with thyroid are emphasized. Abnormal metabolism, with a tendency to a minus rate, is characteristic of arthritis especially in early years, having a tendency to return to normal as the disease lengthens.

Poisoning from methyl chloride used in domestic refrigerators. A committee was appointed by the American Medical Association to study the danger of toxic gases used in industry and home. In the meantime, deaths from the use of methyl chloride in mechanical refrigeration occurred in Chicago, where the discontinuance of methyl chloride was recommended until some less hazardous gas could be substituted.

Methyl chloride poisoning from domestic refrigerators. The narcotic properties of methyl chloride have been recognized for more than fifty years. Its toxicity is given as one-fourth that of chloroform. Recent carefully controlled studies in the U. S. Bureau of Mines show that exposures of from ten to twelve hours to low concentrations of the gas are sufficient to produce death in guinea-pigs, and that such exposure results in characteristic pathological changes. A review of the literature shows forty-three reported cases of poisoning, with one death, from methyl chloride, incidental to its use in ice machines and refrigerators.

Diet in gastrostomy. Realizing the value of the action of ptyalin and mastication in the mouth, the author has suggested that the patient chew his food and then expectorate it into the funnel used in feeding gastrostomy patients.

Underweight and overweight in relation to vitality. In the early twenties underweight is a disadvantage in relation to mortality, this hazard increases until forty, when underweight becomes an advantage.

The value of liver and iron in the treatment of secondary anemia. Experiments in the treatment of anemia have proven that liver and iron given together were more effective in creating increased hemoglobin regeneration than when given alone. This result was particularly striking in anemia associated with hook worm. Liver, or iron in the form of pills of ferrous carbonate, used alone, will produce increased hemoglobin regeneration though not as effectively as when the combination is administered.

The status of the therapeutics of irradiated ergosterol. Irradiated ergosterol has been used and found to be valuable in treatment and prevention of rickets and tetany. A standard dosage has been established, based on a biological estimation. Premature and rapidly growing infants must be regarded as a separate group. Irradiated milk is also valuable in combating rickets and tetany and probably irradiated cereals will have a part in their control.

Desiccated stomach in the treatment of pernicious anemia. Shortly after the discoveries of Minot and Murphy on the benefits of liver in pernicious anemia, research was started on the effects of dessicated stomach. The feeding of desiccated hogs' stomach seems to be more effective than liver in pernicious anemia, as a smaller amount per gram of material is required to produce complete remission.

A soy bean food preparation for feeding infants. A food preparation has recently been formulated for administration to infants with a milk idiosyncrasy. With some infants, all milk has been omitted and nourishment given in the form of sugar, cereals and fruit juices. This is safe for a short time, but protein starvation ensues if it is practised long. A food preparation sold under the name of "Sobee" has, as a basis, soy bean flour with calcium carbonate and sodium chloride added to equalize the mineral content, and with milk and olive oil to bring the energy content to a level in the form of fat.

Do adults need vitamin D? The author cites experiments to show the need of vitamin D in the diet of adults and children and in the treatment of osteomalacia. It was proved that adults need vitamin D, but not so much as the growing organism. Short laboratory experiments on normal men and women have not as yet shown any effect from adding or withdrawing vitamin D. In more or less unusual conditions, when the body has special need for calcium, the reports are different. The healing of fractures has been hastened by administering cod liver oil.

Committee on foods, council on pharmacy and chemistry. Any product which is to be considered for "Accepted Foods" must be presented to the Committee on Foods of the American Medical Association. The following points must be known concerning the food: composition, approximate amounts of other substances incorporated, and, when deemed necessary by the committee, more detailed statements as to the protein, carbohydrate, fat, mineral salts or vitamin content.

Protein digestion in infancy. The buffer qualities of milk are said to lessen or even prevent entirely the production of a sufficient degree of acidity, consequently the contents of the stomach may pass into the intestine practically unaltered by digestion. In the small intestine, conditions for protein digestion are not entirely favorable. It has been demonstrated by different methods that good peptic digestion takes place in infants' stomachs. In human milk, the disintegration of protein by gastric digestion is less than cow's milk. The high albumin content of human milk renders its protein less digestible in the stomach than that of cow's milk. It was proved that the protein of human milk is less susceptible to tryptic action than that of cow's milk. Researches on nitrogen balance have shown that there is good utilization and absorption of the protein of human milk.

Journal of Biological Chemistry

Vol. 83, July, 1929

*The effect of diet on the copper content of milk. C. A. Elvejem, H. Steenbock and E. B. Hart.—p. 27.

Buffer intensities of milk and milk constituents. E. O. Whittier.—p. 79.

Determination of sugar in blood. S. R. Benedict.—p. 165.

*Iron in nutrition. The ineffectiveness of high doses of iron in curing anemia in the rat. J. Waddell, H. Steenbock and E. B. Hart.—p. 243.

*Iron in nutrition. Further proof that the anemia produced on diets of whole milk and iron is due to a deficiency of copper. J. Waddell, H. Steenbock, C. A. Elvejem and E. B. Hart.—p. 251.

*On the presence of aluminum in plant and animal matter. L. Kahlenberg and J. O. Closs.—p. 261.

Vol. 83, August, 1929

Sparing action of fat on the antineuritic vitamin B.—H. M. Evans and S. Lepkovsky.—p. 269.

*The effect of avitaminosis on hematopoietic function. Vitamin A deficiency. B. Sure, M. C. Kik, and D. J. Walker.—p. 375.

*The effect of avitaminosis on hematopoietic function. Vitamin B deficiency. B. Sure, M. C. Kik, and D. J. Walker.—p. 387.

*The effect of avitaminosis on hematopoietic function. Vitamin E deficiency. B. Sure, M. C. Kik, and D. J. Walker.—p. 401.

The storage of manganese and copper in the animal body and its influence on hemoglobin building. R. W. Titus and J. S. Hughes.—p. 463.

Comparison of biological and colorimetric assays for vitamin A as applied to fish oils. E. R. Norris and I. S. Danielson.—p. 469.

Vol. 83, September, 1929

*Quantitative studies of responses to different intakes of vitamin D. H. C. Sherman and H. K. Stiebling.—p. 497.

Further findings on invertase from honey. P. E. Papadakis.—p. 561.

*The effect of an exclusive meat diet lasting one year on the carbohydrate tolerance of two normal men. E. Tolstoi.—p. 747.

The effect of an exclusive meat diet on the chemical constituents of the blood. E. Tolstoi.—p. 753.

The effect of diet on the copper content of milk. It was found by actual experimentation that cows fed on a normal ration produce milk which contains about fifteen-hundredths of a milligram of copper per liter. The copper content of the milk is not changed by increasing the copper intake five-fold. Milk from thirteen herds of cattle located in various sections of the United States showed very slight differences in copper content. Goat's milk corresponds to cow's milk, both in the copper content and the lack of effect produced by an increased copper intake.

Iron in nutrition. The ineffectiveness of high doses of iron in curing anemia in the rat. Beneficial results have been obtained in the past by the clinical treatment of certain anemias with large doses of iron salts. It was found that iron, when freed from copper, had little or no result, but that so-called pure iron salts, prepared from standard iron wire, when given at sufficiently high levels, and not freed from traces of copper, did cure this anemia.

Iron in nutrition. Further proof that the anemia produced on diets of whole milk and iron is due to a deficiency of copper. Experiments in which the supplementing of a basal diet of whole milk and iron with several liver preparations, with hydrogen sulfide fractions of acid extracts of the ashes of two of them, and with copper as a solution of copper sulfate, all on the same levels of copper intake, have shown that each serves equally well to cure the nutritional anemia produced by the basal diet. This proves that the deficiency of the diet is due to an inorganic deficiency of copper only.

On the presence of aluminum in plant and animal matter. McCollum, Rast and Becker performed a series of experiments which led them to arrive at the conclusion that aluminum is not a constituent of either plant or animal matter. This statement has been disproved by the examination in the electric arc of both plant and animal matter. The spectra were photographed in an airtight room and the characteristic lines, found in each case, proved that aluminum was present.

The effect of avitamosis on hematopoietic function. Vitamin A deficiency. In experimenting with albino rats on vitamin A deficiency diets, it was found that in the preopthalmic stage there was a suggestion of an anemia characterized by reduction in either hemoglobin or erythrocytes, but no relation between vitamin A deficiency and pernicious anemia.

The effect of avitaminosis on hematopoietic function. Vitamin B deficiency. Uncomplicated vitamin B deficiency also produces disturbances in hematopoietic function associated with anhydremia, the latter pathological condition being only apparent during stages of prolonged maintenance. Mothers whose young are developing uncomplicated vitamin B deficiency, because of suboptimum amounts of vitamin B for normal lactation, show no change in the concentration of hemoglobin, slight reduction in the concentration of erythrocytes and a notable reduction in the concentration of serum proteins.

The effect of avitaminosis on hematopoietic function. Vitamin E deficiency. Vitamin E has no influence on the hematopoietic function of females suffering from avitaminosis during the resorption of the fetus. Recent experiments with vitamin E rations have proved that there is no association between iron or other mineral constituents of the ash of lettuce leaves and vitamin E function; therefore, they are ineffective in preventing female sterility produced by vitamin E deficiency.

Quantitative studies of responses to different intakes of vitamin D. In young rats reared by mothers whose diets consisted largely of two-thirds ground whole wheat and one-third whole milk powder, and transferred at the twenty-first or twenty-eighth day of age to a diet deficient in vitamin D, but adequate in other respects, practically normal calcification resulted by the fifty-sixth day in cases in which the basal diet had been supplemented by somewhat more than 5 per cent of the calories from whole milk powder, and by the eightieth day in cases in which the basal diet had been supplemented during the preceding four weeks by the same

milk powder, to the extent of eight to nine per cent. Other smaller portions of milk produced corresponding improvements in calcification over their respective negative controls. These experiments and others have confirmed the fact that cow's milk as ordinarily produced in this country contains important amounts of vitamin D.

At the end of the experimental period, the femurs of the rats were dissected, ashed, and analyzed for calcium. It was found that the deposition of calcium in the femurs was more closely proportional to the supplementary vitamin D furnished than to the gain in weight.

The effect of an exclusive meat diet lasting one year on the carbohydrate tolerance of two normal men. Carbohydrate tolerance, although temporarily lowered by an exclusive meat diet, was not permanently impaired, and returned to normal after a few weeks of general diet. A probable fallacy in the interpretation of the glucose tolerance test is indicated, in the failure to consider the protein intake previous to the test.

Journal of Home Economics

Vol. 21, August, 1929

The equipment of a large production kitchen in an English training college. G. K. Lockhead and R. Whitaker.—p. 566.

*The influence of heat upon water absorption of certain dried fruits. H. B. Thompson and G. C. Burk.—p. 593.

Thermal efficiencies of aluminum saucepans. C. Laudreth and R. O. Hutchinson.—p. 599.

Vol. 21, September, 1929

*Vitamin A content of the green and white leaves of market head lettuce. M. M. Kramer, G. Boehm, and R. E. Williams.—p. 679.

Vol. 21, October, 1929

Abstracts of papers on food and nutrition. Reported to the food and nutrition section, twenty-second annual meeting, American Home Economics Association.—p. 776.

The influence of heat upon water absorption of certain dried fruits. In experiments with dried apples, figs, prunes and apricots, a maximum degree of water absorption and a minimum amount of time for cooking was reached when fruits were soaked in water at a temperature of 80 degrees centigrade. Long soaking in cold water did not improve the fruits.

Vitamin A content of the green and white leaves of market head lettuce. The outer green leaves of California ice-berg head lettuce were found to contain about thirty times as much vitamin A as did the white inner hearts.

Journal of Nutrition

Vol. 1, July, 1929

*On the carbon nitrogen ratio in the urine of rats deprived of one or both factors of the vitamin B complex. S. K. Kon.—p. 67.

The measurement of the basal heat production of pigeons. F. G. Benedict and O. Riddle.—p. 475.

*The measurement of basal heat production of pigeons. Physiological technique. F. G. Benedict and O. Riddle.—p. 497.

*Vitamin requirements of nursing young. The production of uncomplicated vitamin B deficiency in nursing young of the albino rat. B. Sure and M. E. Smith.—p. 537.

Vol. 2, September, 1929

*Technique for determination of the antineuritic vitamin B. H. M. Evans and S. Lepkovsky.—p.1.

*A study of the effects of certain diets upon the growth and form of albino rats. E. J. Quinn and C. G. King and B. H. Dimit.—p. 7.

*The development of the suckling young of milk fed rats. A. L. Daniels, D. Jordon and M. K. Hutton.—p. 19.

*Protein metabolism of children on diets low in carbohydrate. I. McQuarrie.—p. 31.

*The vitamin B and the vitamin G requirements of the albino rat. F. C. Bing and L. B. Mendel.—p. 49.

An application of some of the more recent methods of estimating vitamin D. V. G. Heller and Charles Caskey.—p. 59.

*The influence of a low fat diet upon fat metabolism during lactation. L. A. Maynard and C. M. McCoy.—p. 67.

*The nutritive value of cereal breakfast foods. Composition and heat value. J. R. Murlin, W. R. Line, H. A. Piper and H. B. Pierce.—p. 83.

*The nutritive value of cereal breakfast foods. Digestibility in vitro, with a study of methods. J. S. Carmine, H. G. Smith, G. C. Havens and J. R. Murlin.—p. 91.

On the carbon-nitrogen ration in the urine of rats deprived of one or both factors of the vitamin B complex. The author reviews in brief the work of others on this subject, namely Bickl, Kauffman, Cosla and Roche. The thirty-six rats used in this experiment were on ration No. 540, consisting of 25

per cent acidulated casein, 75 per cent cane sugar and 4 per cent salts. Conclusions drawn seem to indicate that rats on a diet deficient in heat stable component show increased C/N ratio as compared to controls. The hypothesis would also indicate that the heat stable factor is in some way linked with the metabolic processes of the body.

The measurement of the basal heat production of pigeons. Physiological technique. Thirteen races of pigeons were studied with regard to basal metabolism and factors influencing it. The factors influencing metabolism were found to be length of time between studies, length of fasting period, time of day or night when test was made and length of time the birds were kept in a small compartment. After these preliminary experiments, the authors feel that it will be possible to obtain some reliable measures of the basal metabolism of pigeons.

Vitamin requirements of nursing young. The production of uncomplicated vitamin B deficiency in nursing young of the albino rat. An uncomplicated vitamin B deficiency was produced in the baby rats and in the mother. The technique was varied from time to time to get various stages of avitaminosis so that biological changes of the blood and tissues could be studied. The findings were typical of those of vitamin B deficiency.

Technique for determination of the antineuritic vitamin B. In estimation studies of vitamin B determination it is essential to have a uniform basal diet. The sucrose-protein diet is the most effective for this purpose.

A study of the effects of certain diets upon the growth and form of albino rats. A detailed study of a diet deficient in vitamin A showed less retardation of body length than of body weight. A vitamin B deficiency resulted in approximately the same retardation.

The development of the suckling young of milk fed rats. According to the authors, the high mortality of the suckling young of milk-fed rats is not due to a deficiency of the antineuritic vitamin, but to the inability of the rat to take sufficient milk to furnish its caloric requirement.

Protein metabolism of children on diets low in carbohydrate. It has been demonstarted that a protein allowance of one gram per kilogram of body weight is far too meagre for growing children on high ketogenic diets. When one-half to one-third of a gram of carbohydrate per kilogram of body weight is given, one and two-thirds to two grams of protein is probably adequate. The factor chiefly responsible for the excessive demand on the protein in the diet reduces the rate of nitrogen excretion. The epileptic convulsion appears to exert very little effect upon the total urinary nitrogen.

Vitamin B and vitamin G requirements of the albino mouse. In the absence of vitamin B, death occurs in about three weeks. In the absence of G, the mouse may live for a considerable period but does not grow. Pellagra-like skin lesions have been produced with an absence of G.

The influence of a low fat diet upon fat metabolism during lactation. The cow and goat were used in this experiment. A low fat ration produced a marked lowering in the volume of milk, with no alteration in the fat content. The fat had a lowered iodine number. A gradual decrease in blood lipoids accompanied the decreasing milk secretion.

The nutritive value of cereal breakfast foods. Composition and heat value. Six cereal breakfast foods have been analyzed and their physiological heat value compared with the combustion heat values of four others, as a preliminary to a detailed comparative study of nutritive values.

The nutritive value of cereal breakfast foods. Digestibility in vitro, with a study of methods. Pre-cooking of cereals affects favorably only the digestibility of starch. Cooking (boiling) improves the digestibility of starch less than the digestibility of the protein. Lumping of the cereal in open boiling retards digestion considerably. The simultaneous action of a

proteolytic enzyme and a diastase produces more rapid digestion than either acting alone.

Modern Hospital

Vol. 33, July, 1929

*How to save money in the dietary department. J. C. Doane.—p. 80.
The status of the dietitian and what she has done to advance it. R. M. Cooley.—p. 146.

Vol. 33, August, 1929

The trained dietitian is an asset to every hospital. E. Hayward.—p. 126.

Vol. 33, September, 1929.

Viewing food service from the dietitian's standpoint. E. Ferbert.—p. 86.
*The use of evaporated milk in infant feeding. A. Lautz.—p. 118.
An effective new shaker for damp salt.—p. 148.
A brand new development in broilers.—p. 152.
Teaching right food habits through the nutrition clinic.—p. 53.

Vol. 33, October, 1929

*Simplifying the construction of diets for diabetic patients. M. T. Bach and E. L. Levringhaus.—p. 132.

How to save money in the dietary department. Much expense in a dietary department may be eliminated by employing a trained and competent dietitian who may be held responsible for all of the details involved in the purchase, preparation and serving of the food. Centralization of responsibility and close coöperation between the personnel of the dietary department and that of the wards is very important. Much waste may be avoided by interviewing the patient before he is served, and by giving as much individual attention and service as possible to all patients.

The use of evaporated milk in infant feeding. The results of extensive experimental study in the use of evaporated milk have shown that its qualities recommend it for general use for infants; that it has given highly satisfactory results in the feeding of infants in every case; and that it has been found especially useful in feeding the infant deprived of mother's milk.

Simplifying the construction of diets for diabetic patients. This plan, devised for the construction of diabetic diets, eliminates much calculating, and can be easily used for the planning of menus, a convenience for patients as well as nurses. "The principle of the plan is the construction of a systematized series of standard diets in accordance with the needs of the given patient and the employment of substitution tables to give daily variations in all articles of food."

Western Hospital and Nurses Review combined with Food Facts

Vol. 13, July, 1929

*Recent advances in vitamin and mineral research. H. S. Mitchell.—p. 17.
Place of canned fruit in the diet. A. F. Morgan.—p. 29.
Los Angeles public health nutritionist. I. Z. Crawford.—p. 31.
Why should there be labor turnover in the hospital? B. McFarland.—p. 40.

Vol. 13, August, 1929

*Achlorhydria gastrica. W. D. Sansum and P. A. Gray.—p. 19.
The story of the olive. R. H. Gast.—p. 21.
Essentials of a properly organized school of dietetics. G. W. Curtis.—p. 29.
*New commercial milk sugar. Editorial.—p. 34.
Outline of student dietitian's training in California hospital. M. E. Davis.—p. 38.

Vol. 14, September, 1929

Red Cross nutritionist in the health program of a metropolitan area. E. B. Simon.—p. 26.
*Salt-free diet as used in heart congestion. H. Spiro, W. W. Newman and E. Starr.—p. 31.
*The advantages of budgeting the dietary department. S. M. Gillam.—p. 38.

Vol. 14, October, 1929

*Artificial foods for infants. H. Kendall.—p. 17.
The rôle of irradiated foods in vitamin therapy. A. J. Lorenz.—p. 38.
*Menus for standard salt-free diet. H. Spiro, W. W. Newman and E. Starr.—p. 43.

Some recent advances in vitamin and mineral research. Vitamin A is no longer regarded as the anti-ophthalmic vitamin, because it is now known to create resistance to infections not only of the eye, but of the ear, nose, throat and lung areas. Vitamin B is duplex. "B" is limited to the anti-neuritic factor, while "G" is the anti-pellagra factor. There are no new developments in regard to vitamin C, due to the fact that its chemistry has not yet been established. The chemistry of vitamin D has been discovered, showing that ergosterol is its most active character.

Vitamin E plays a part in reproduction, but further investigation of this vitamin is indicated.

Achlorhydria gastrica, a simple management. Achlorhydria gastrica, or lack of hydrochloric acid in gastric juice, is broadly used to indicate any subnormal amount of the acid. Until more definite information is available concerning its origin, its effects can be controlled by the use of citric acid, found in grapefruit, lemons and oranges.

New commercial milk sugar. Beta lactose, three times as sweet and as soluble as alpha lactose, will be largely used as a commercial product if a cheaper means of production can be secured.

Salt-free diet as used in heart congestion. The dietary régime is outlined as follows: a period of semi-starvation lasting from 24 to 74 hours, followed by a salt-free, soft diet below the patient's caloric requirements. After this diet has been in effect for a week, the standard salt-free diet is given, which is at the level of average basal caloric requirements and contains 50 grams protein, less than one gram salt, and an abundance of vitamins.

The advantages of budgeting the dietary department. The budget gives advance information of what is happening and thus acts as a danger signal. Any extra expense in the dietary department may be definitely traced to a single source by comparing the costs of each department with the budget. "The hospital that has budgetary control will avoid deficits, practice greater economy where needed, obtain better support from the department heads; and the extra cost of accounting will be offset by the efficient production and complete success of the system."

Artificial foods for infants. The perfect artificial food has not yet been found. For normal infants, raw certified milk from scientifically fed cows is the most desirable artificial food.

Menus for standard salt-free diet. Colorful and pleasing menus, which appeal to the patient and maintain his interest and appetite until he is accustomed to salt-free foods, and have been carefully planned by specialists, are given.

ASSOCIATION REPORTS, 1928–1929

Social Service Section

The Social Service Section carefully studied the reports of previous Chairmen of this Section before planning possible activities for the year. In November, 1928, letters were written to the American Association of Social Workers and to the American Home Economics Association to find out whether or not they had Social Service Sections, and if so, what their activities were. It was thought advisable to do this in order that in planning our work we might not overlap the work of other organizations. A tentative program of work was then outlined by the Section. It was presented to the Executive Committee of the American Dietetic Association in December for suggestions and approval. It was agreed that the American Dietetic Association would send a postal card to each member of the Association requesting her to indicate the section with which she wished to work during the coming year. Sixty-two members of the American Dietetic Association indicated that work with the Social Service Section was their first choice; nine gave Social Service as second choice, and one-hundred-eighteen expressed a wish to know about the work.

In the March issue of the Journal of the American Dietetic Association, suggestions for possible activities for the Section for the year were released. A request was made that those interested in the Section write indicating their first interest. A form letter, with enclosure of the announcement made in the Journal, was sent by the Chairman of the Social Service Section to all members who had indicated social service as their first or second choice. In this letter each member was requested to study the possible activities outlined and indicate her first, second and third choice of interests for the year. She was also requested to suggest desirable chairmen for the sub-committees who might undertake the activities suggested. As a result, the following subjects were studied by sub-committees.[1]

[1] Complete reports of sub-committees may be obtained by members on application to the Business Office.

I. Outlining the different types of work represented in the Section, listing the chief problems of the group, and studying a few of the common problems. Chairman, Grace Bulman, Dietitian, U. S. Veterans' Bureau, Washington, D. C.

II. Studying the training of dietitians in the social service field, the opportunities offered them for community experience, and the methods of work. Chairman, Grace S. Wagner, Red Cross Nutritionist, Knox County Chapter, Knoxville, Tenn.

III. Making an effort to provide, secure and circulate information regarding the work of hospital dietitians, out patient departments, and other groups teaching nutrition. Chairman, Laurena Perrine, Head Dietitian, Garfield Hospital, Washington, D. C.

IV. Studying carefully in given communities or sections the methods of interpreting nutrition to the home and community at large, with a summary of results. Chairman, Marie E. Dohn, Red Cross Nutritionist.

V. Studying special phases of nutrition—as pre-school, industrial, and adult programs in towns and cities. Chairman, Mrs. Thelma W. Sorenson, 2102 S. 51st Ave., Minneapolis, Minn.

VI. Studying methods of procedure in giving diet instruction to both hospital and ambulatory patients. Chairman, Sarah Elkin, Mandel Clinic, Michael Reese Hospital, Chicago, Ill.

Each sub-committee furnished a report of its activities. These were mimeographed and distributed to all members of the Social Service Section in attendance at the Section dinner. They were also distributed at the close of the program sponsored by the Social Service Section. The business manager of the American Dietetic Association was requested to mail a copy of the report of the sub-committees to each member who indicated the Social Service Section as her first, second or third choice—provided those members were not in attendance at the meeting. The business manager was also requested to mail reports to any other members of the Association who might ask for them, in so far as the supply or reports will make this possible.

Respectfully submitted,

CLYDE B. SCHUMAN,

Chairman, Social Service Section, American Dietetic Association.

DIET THERAPY SECTION

In organizing the Section activities for the year 1928–1929, the work has been greatly facilitated because of the excellent assistance of the main office in determining which members were interested in the various lines of Association work. It has been possible to organize those interested primarily in diet therapy into six groups. These six groups are active in the following fields:

1. Carrying on the work with case histories. Nelda Ross, Chairman.
2. Stimulating teaching of diet therapy in colleges, in order to prepare students as dietitians, and furthering this work by suggesting that diet therapy be given by a dietitian who has had experience in the hospital field. Mabel Flanley, Chairman.
3. Standardizing food composition tables by (a) collecting authentic sources of figures on food composition (b) collecting data on figures used by representative institutions throughout the country and (c) recommending standards as a result of these studies. Martha Davis, Chairman.
4. Working out simple quantitative as well as qualitative standards for normal and therapeutic diets, and collecting and summarizing such material as is already available along those lines. Annie Laird, Chairman.
5. Abstracting and mimeographing articles from current magazines and new books which deal primarily with diet therapy, and keeping such material available in mimeographed form for those of the Association who wish such material. Elizabeth Hayward, Chairman.
6. Adapting adult therapeutic diets to children's special diet needs. Sister Mary Victor, Chairman.

Recommendations for the following year were made at the convention dinner meeting, suggesting that the committee continue the work started and that Mary Harrington be chairman of a new sub-committee which will work on standardizing figures for simple recipes used in therapeutic diet work.

All who are interested in any phases of this work are urged to write to the chairman as early as possible. More detailed plans for this coming year will be given in the next JOURNAL.

Respectfully submitted,

HELEN B. ANDERSON,
Chairman, Diet Therapy Section, American Dietetic Association.

EDUCATION SECTION

At the annual business meeting of the American Dietetic Association in 1928, certain recommendations and suggestions were advanced by the Chairman of the Section on Education. It has been the aim of the present Chairman to work out these suggestions as far as possible, supplementing them with other ideas presented to her from various sources, and to continue the work so ably begun in former years.

The following projects have been inaugurated or completed:

1. The re-organization of a course of study for student nurses. Dorothy Hacker of the Indiana University Hospital was appointed Chairman. She selected as her committee, Dorothy Waller, University of Michigan; Sister Mary Victor, St. Mary's Hospital, Rochester; Mrs. Louise Gilbert, formerly instructor in Dietetics at Presbyterian Hospital in Chicago, and now of Evanston Hospital; and Maude Perry. Acting upon the advice of the previous chairman, they submitted outlines to the other committee members for comparison and study. An interchange of ideas resulted in the development of a tentative course which was accepted at a joint committee meeting. This course of study was compiled, and mimeographed copies were available at the Education Exhibit booth during the convention. Suggestions and criticisms from other members were welcomed and referred to the committee. It is to be hoped that the work of this committee will continue throughout the ensuing year. If the Association finds the work acceptable, the approved outline for the teaching of student nurses will be submitted for publication in the JOURNAL as well as in the publications of allied organizations.
2. A survey leading to a suggestive outline for college courses for students entering the field of nutrition. An excellent opportunity presented itself this year, as the American Home Economics Association was conducting just such a survey and Dr. Koehne worked with them. She promised to head a similar committee for this group as well, correlating her work with both organizations.
3. The Education Exhibit. Sarah Elkin of Michael Reese Hospital had developed this work so efficiently that she was asked to continue, assisted by Lillian Giebel Hern, Los Angeles Hospital; Maneza Moore, Beth Israel, Boston; and Marion Tilds of St. Luke's Hospital, Kansas City. The Exhibit is kept on file at

the Association office and is loaned out to members for periods of time not exceeding two weeks. A gratifying number of requests were made for this material during the past year, not only from members, but from others interested. An added feature is data on methods of procedure in giving diet instruction to both hospital and ambulatory patients. The Education Exhibit was sent to the meeting of the American Hospital Association at Atlantic City, and to the Catholic Hospital Association in Chicago. The coöperation of Mrs. Richmond, the business manager, has been invaluable, and the committee wishes to take this opportunity to present their sincere appreciation of her efforts.

4. Card index system. This was introduced for the purpose of presenting a summarized record of courses given to student dietitians in various hospitals. Each record contains information such as the date of accrediting or refusal, the name of the dietitian in charge at the time, any subsequent changes in dietitians or subject matter, the length of the course, the average number of students, and any other data as may seem advisable to record. This index seemed necessary as a foundation for more thorough inspection of student courses than now prevails.
5. Statistics concerning the average length of the student courses. Florence Levy of Mt. Sinai Hospital, Cleveland, sent out a short questionnaire, from which she compiled statistics regarding maintenance or salary, the opportunities for specialized training, and other material deemed advisable and valuable for the work of the committee on approval of student courses.
6. Bibliography, to be published as a suggestion for dietary department libraries in hospitals. The various section chairmen were asked to submit a bibliography useful for their particular work. It is hoped that this activity will be carried to its fulfillment in the ensuing year.
7. Form letters containing inquiries regarding the length of courses and detail of instruction given to medical students in normal nutrition and the therapeutic use of food. These were sent out to medical schools by a sub-committee headed by Dr. Daum of Iowa University.
8. A plan for the affiliation of hospitals offering courses to student dietitians who have insufficient material for a well rounded course. Millie Kalsem selected as her committee, Gertrude Thomas, University of Minnesota Hospital; Helen S. Mitchell, Nutrition

Laboratory, Battle Creek Sanitarium; Reena Hinyan, California Lutheran Hospital, Los Angeles; Nell Taylor, Michael Reese Hospital, Chicago; Bertha Biltz, Presbyterian Hospital, New York; Edith Tilton, University of Oklahoma Hospital; Charlotte Addison, Western Pennsylvania Hospital, Pittsburgh; Thelma Franke, St. Luke's Hospital, Denver; Gertrude Stevens, General Hospital, Tacoma; Amy Colescott, City Hospital of Indianapolis; and Sister Meinalfa, St. Theresa Hospital, Waukegan.

Much of the work of the Section has had to do with the approval of courses given in hospitals for student dietitians. Eugenia Martin, Barnes Hospital, St. Louis, and Rosina Vance, formerly of Massachusetts General, acted with the Section Chairman as the approval committee. During the course of the year, eleven new hospitals applied and were approved. Eight new courses were submitted and refused because of inadequate standards. Three courses were discontinued by the hospitals themselves. The yearly re-check found fourteen hospitals where changes in dietitians had occurred. This necessitated the submitting of a new questionnaire. Four of these were refused, as they reported a change in conditions. Four questionnaires are at present in the hands of the committee, too late for including in this report. Nine recent changes in dietitians have been reported, to all of whom new questionnaires have been submitted. In some cases, where the successor is known, the request has been sent directly to her. Otherwise, the superintendent is notified that the new dietitian must submit her course for approval or it will be necessary to remove the name of the hospital from the published list.

Much difficulty has been encountered this year in obtaining answers to the form letter asking for a yearly check on the course. Many dietitians seem to think that once the Association approves the course, this approval may continue indefinitely. Another popular misconception is that the approval granted one dietitian carries over to her successor. The latter may therefore be very careless about a matter of utmost importance if the hospital is to remain on the approved list. This makes the work of the committee difficult and results in many misunderstandings.

Mrs. Thoma concluded her report of the Education Section last year with the following paragraph: "That ways and means be considered for having hospitals, whose names appear on the list approved by the American Dietetic Association for the work offered to student dietitians, visited by an accredited representative of the Association."

Many complaints have been registered with this year's Chairman regarding the approval of certain courses. Members in good standing have protested very vigorously in several cases, yet the committee of approval has had to rely on the hospitals' written questionnaires, which it cannot refuse to accept without doubting the veracity and judgment of the persons submitting them. This creates a very distressing situation which the committee feels can only be remedied by having an inspector, a representative of our Association, visit all hospitals applying for approval. Shall we undertake the expense involved in such a course, or shall we ask that the hospital help us bear the burden of this expenditure, as is done in other organizations similar to ours? If our approval is given to a course, it should stamp it as one in which the student is given the highest quality of work and training. I hope to see some such plan worked out in the ensuing year.

The final, and to some members, the most important feature which this Section has considered is the matter of the registration of the dietitian. Many members believe that it is increasingly important for the Association to adopt measures whereby the title "dietitian," "nutritionist," or whatever designation we choose to use, be protected from use by charlatans, quacks, and inadequately trained people. The President, the Advisory Committee, and the Chairman of this Section have considered this at length throughout the past twelve months. Professional organizations similar to ours have adopted the following means of protection or recognition:

1. Registration and control by state legislation. This may be a good disciplinary measure and invokes the law upon those unfitted to use the title. It, however, will involve each state association in state politics; legislation will have to be resorted to; varying standards for each state will prevail; and politicians must be dealt with or standards will almost invariably be lowered. Once established, these standards become difficult to raise, and involve much further legislation. A state examination might well be required. The American League of Nursing can furnish many adequate examples of the impracticability of this plan.

2. Establishment of a national Board of Examiners. This is a superior method of admitting members, but is a very slow one. The American Medical Association employs such a board. This is not a protection against difficulties, unless we can procure national legislation to establish public opinion and procure a national license.

3. A fellowship or some such designation granted by our own national governing board. This method is used by the American College of

Surgeons and applied for by doctors of medicine who comply with its standards. Suggestions have been made that a thesis be submitted, a personal appearance made before this board of examiners, and that a title or degree, indicating the approval of the Association, be used.

The Chairman of this Section wishes to leave with you these ideas regarding national registration, and hopes that the members will communicate any suggestions to the President or to the Chairman. This step toward registration must be made carefully. We must consider the future growth and development of our group and begin now to lay a firm foundation.

Respectfully submitted,

RUTH M. COOLEY,

Chairman, Education Section, American Dietetic Association.

ADMINISTRATION SECTION

The Administration Section concerned itself chiefly with the problem of organization within its own group, an attempt having been made to learn of those specially interested. To those who indicated an interest, a bibliography with short abstracts of articles in current publications devoted to related fields was sent. This work will be continued.

The following members have contributed to the bibliography: Leslie Hunter, Angeline Phillips, Marion King, Margaret Brown, Mary Lindsley, Emma Smedley, Mabel McLaughlin, Rosalie Godfrey and Elizabeth Hayward.

Three committees were appointed to study special problems. The Committee on Nomenclature, through one of its members, Helen Clark, has made a study of the derivation of the word dietitian and the early development and history of the profession represented by the word. This report will appear, in part, in the JOURNAL.

The Committee on Code of Ethics has made a study of the codes of other organizations in related fields, and although the present chairman was appointed only recently, the Committee has formulated suggestions for next year's work.

The Committee on Content of Courses was appointed to make an investigation as to the possible relation between inadequacies of college training and the criticisms of dietitians as administrators, offered at last year's meeting. This committee met with a similar group in the American Home Economics Association. Their conclusions were: 1. A careful analysis of courses submitted showed that they included the teaching

of essential subjects. 2. Heads of Institutional Management courses felt that they were unable to give satisfactory training in practical work, because students have so many other classes during the same semester. 3. Instructors in Institutional Management courses felt the need of developing in the students a willingness to accept new ideas; teaching them to apply fundamental principles in food preparation; giving them an opportunity for some practice during summer vacations.

The fact that the list of members interested could not be obtained until after the results of the questionnaires sent out by the business office were known, delayed progress considerably, but with the lists now available, we feel sure that the Section will be able to make much better progress.

Respectfully submitted,

LENNA COOPER,
Chairman, Administration Section, American Dietetic Association.

AFFILIATION

Earlier in the year a form letter was sent to the twenty-six organized dietetic associations, only nine of which were then formally affiliated with the American Dietetic Association. In case the local or state association was already affiliated, an officer was asked to present the criticism of her group on any phase of membership, personal or affiliated, in the national organization. If no affiliation existed, reasons for non-affiliation were requested. To date replies have been received from thirteen associations. One association, that of Washington, D. C., concerning which there was misunderstanding regarding its status, is now definitely affiliated. Another, Indiana, has since been accepted, and four more, Michigan State, Virginia State, St. Louis and Cincinnati, will apply this year.

The chief argument of non-affiliated associations against affiliation has been their unwillingness to relegate to associate membership such members who do not come up to the qualification standards of the American Dietetic Association. They stated that many of their most active and valuable members were not graduates of four year University Home Economics Departments. To be sure, such persons could have been accepted as active members if application had been made before October 1st, 1926; the local associations of which they were members could have affiliated if they had merely so changed their constitutions that no new active members of this group would be accepted after that date. In

some cases probably there was misunderstanding on this question. In other cases the local association has remained unwilling to refuse active membership to oncoming groups of dietitians from two year training schools.

As a result of the confidential letters received, and long consideration of the problems involved, I herewith submit the following recommendations:

Form of Organization

1. Where there exists within a state an affiliated association, it should be urged to change its name and constitution, where necessary, to the ——— State Dietetic Association.

2. Where no such affiliation exists, every effort should be made by the officers of the American Dietetic Association and interested members within the state, to secure such an affiliated organization within the coming year.

If there are but few large cities in the state, and the number of trained dietitians would be too small for purposes of successful organization and meetings, it is recommended that several states combine in forming an affiliated organization. Dietitians employed in these states need the advantages that professional organizations bring about.

3. Such organizations, as suggested in (1) and (2) above, should have membership qualifications similar to those of the American Dietetic Association, and active and associate members would have a similar status in the American Dietetic Association. Their affiliation should be approved by the method outlined in the Constitution and By-Laws of the national organization.

4. State or district affiliated organizations, though limited in active and associate members to those properly qualified, may, however, in their constitutions provide for affiliation with them of other *local associations* within their borders. Qualifications for such group affiliations within the state or district would be independent of national control, and should be designed to be of most help to dietitians within that area. Each state association should encourage the formation of local organizations of all dietitians.

5. Membership in the American Dietetic Association should be obtained by the present system, but it should automatically qualify a person to membership in her state or district association, wherever her residence may be. Personal dues to the American Dietetic Association would be payable through affiliated state organizations and should be included in state and local fees.

Relation of State or District Affiliated Associations to the American Dietetic Association

1. Responsibilities of the American Dietetic Association to the state association:
   a. To keep the office of each state or district informed once in three months of names and addresses of members residing within their borders, changes in address, transfers from other states, etc.
   b. To send notification of the time dues of the affiliated association are payable.
   c. To send reports of the proceedings of the Executive Committee.
   d. To consult the presidents of state organizations on matters of general policy.
   e. To notify, in March, of changes in the constitution being considered in time for an expression of opinion from each state before the annual meetings.
   f. To distribute appointments to Placement Bureau Board, in such a way as to cover the country, thereby making possible more efficient functioning. A suggestion would be to give the Board member in a given district considerable responsibility for confirming recommendations of applicants, notifying the office of positions vacant, finding the right person to fill a vacancy, etc.
2. Responsibilities of state or district associations to the American Dietetic Association:
   a. To keep the business office informed once a month of changes and additions to local membership roster.
   b. To send to the business office once each year a list of officers and a list of affiliated local organizations, with names and addresses of their officers.
   c. To select each year responsible representatives who will take an active part in the work of each of the four sections of the American Dietetic Association: Education, Diet Therapy, Administration and Social Service, and other association activities. This will make for closer union, greatly facilitate the work of the Association, and prove a stimulus to many of the younger dietitians.
   d. To select a representative who will work in close coöperation with the local universities and colleges, thus giving teachers

of nutrition the practical contact with dietitians, and enabling dietitians to keep up to date their knowledge of nutrition.

Respectfully submitted,

MARTHA KOEHNE,
Chairman, Affiliation Committee.

LIFE MEMBERSHIP

Another year has gone by in the history of the Association, and with its passing, we have gained forty-three life members. In the March, 1929, JOURNAL, we reported twelve life members, thus making our total number of life members fifty-five to date. You will recall that on October 29, 1929, the Constitution of the American Dietetic Association was amended to read: "Life Members: Any active member of this Association may become a life member with all the rights and privileges of an active member by the payment of seventy-five dollars into the Treasury of the Association. This shall include subscription to the Journal of the Association. Life members shall be exempt from the payment of dues. This amendment shall become effective one year from the date of this annual meeting."

Dues for life membership can be paid in two ways: first, seventy-five dollars may be paid to the Association in a lump sum. If, however, five dollars has been paid to the Association for the current year, this may be deducted from the total and seventy dollars cash paid. Second, a deferred payment plan may be used; this provides for the payment of twenty dollars the first year and fifteen dollars for the succeeding four years, making a total of eighty dollars paid to the Association. This additional assessment on the deferred payment plan is necessary to cover the loss in yearly interest, since the yearly interest from the life membership fee is used for current expenses as is the case with yearly dues.

A committee will be working again this year to develop interest in life membership; when the matter is presented, we trust it will be given the serious consideration of the members.

The following is a complete list of life members, arranged in the order in which they applied for this membership: Anna E. Boller, Mrs. Elizabeth Thorpe, Dr. Ruth Wheeler, Helen Pond, Mrs. Mary Pascoe Huddleson, Virginia H. Ray, A. L. Laird, Florence Latimer, Lenna Cooper, Mrs. Katherine Mitchell Thoma, Mary Huhn, Florence Shippee, Fanny Sicher, Florence Miller, Clara Watkins, Mary Lindsley, Elsbeth Hennecke, Helen Gilson, Clyde Schuman, Edith Beshore, Helen Clarke, Frances Stern, Rose Baker, Dixie Rudberg, Jane Herendeen, Dr. Alice Willard,

Della McCallum, Ruth Heidinger, Rhoda Tyler, Frances Saville, Mrs. Ruth Reineke, Ida Harden, Millie Osgood, Mrs. Marjorie Hulsizer, Copher, Alice Flint, Sister Alexius Gavin, Thelma M. Sumner, Grace Bulman, Mrs. Winifred Erickson, Dorothy Slocum, Mrs. Dorothy Stewart Waller, S. Margaret Gillam, Laura Tippett, Alice McCollister, Millie Kalsem, M. Alice Pidgeon, Mrs. Alice Dolman, Isabel L. Hunter, Estelle Nesbitt, and Claribel Hazlett.

THELMA TUBBS CURRIER,
Chairman, Life Membership Committee.

INVESTIGATIONS

The formation of this Committee was proposed at the Executive Committee Meeting last year. It was believed that the Association should enter upon a program with the idea of combating various diet fads, misleading advertising, and so-called dietetic information being transmitted through the mails. The American Medical Association maintains such a bureau, and it was the concensus of opinion of the Executive Committee that our Association might properly concern itself with the same problem.

The purpose of the Committee as formulated, was to investigate the advertising claims of foodstuffs, diet régimes and equipment, and, second, to investigate firms which desired to advertise in the JOURNAL. Just recently we have been most actively engaged in developing a method of investigation of prospective advertisers. The Committee is also collecting a library of magazines and material which has to do with diet fads and fancies. This gives us a clue to some of the trends that need to be combated.

It is proposed that the Committee enlarge its membership for the coming year and that the members be representative of various geographical areas, and that the lines of endeavor already proposed be continued with any additions or recommendations that the members of the Association would care to make.

Respectfully submitted,
KATE DAUM,
Chairman, Investigations Committee.

JOURNAL REPORT

The JOURNAL seems to have reached a stage in its progress when we should look forward to a bi-monthly publication, to the centralization of the editorial work in an established office location, and to the employ-

ment of a part-time or full-time editorial assistant, versed in journalistic management and correct English usage, who would take the responsibility for routine matters. With such assistance, the post of editor on an unpaid basis could still be delegated to a qualified and responsible officer or representative of the Association.

In a review of the past year's work with the JOURNAL, it seems fitting to mention our indebtedness to the constant interest and encouragement of the President, Anna E. Boller; the invaluable assistance on editorial problems of Mary DeGarmo Bryan, Florence H. Smith, Margaret Gillam, Martha Koehne, and Katherine Mitchell Thoma; the excellent work of Kathleen M. Lewis in the organization of the section on current literature; the conscientious and thorough work of Emma L. Feeney at the Convention: and to Olive F. Olmstead, whose assistance has been indispensable in preparing each issue of the Journal for publication.

MARY PASCOE HUDDLESON,
Editor.

RESOLUTIONS

Be it resolved:

1. That the thanks of the Association be extended to the members of the Southeastern Michigan Dietetic Association and the Michigan Dietetic Association for their untiring and very successful efforts in making the local arrangements for this convention, and to the Michigan Dietetic Association, the Harper School and Mrs. Sackman, the Merrill Palmer School and Miss White, and to the Statler Hotel for the teas which have added so much to the enjoyment of our stay here.

2. That we express our appreciation of the gracious coöperation and great efficiency of the staff of the Hotel Statler and especially to the dietitian, Miss Margaret Brown, for the delightful touches she has added to our entertainment.

3. That a vote of thanks be extended to the exhibitors who have contributed so much to our information and to the success of the convention.

4. That to our program committee chairman, Miss Florence Smith, and to Mrs. Katherine Mitchell Thoma, who so ably assisted her in planning and carrying through this very successful and stimulating program, we express our gratitude and appreciation of their efforts and their skill.

5. That our thanks be extended to the committee chairman, and to the many other people who have contributed to the success of the meeting.

Be it resolved also:

1. That our thanks be extended to our retiring Secretary, Mrs. Quindara Oliver Dodge, for her very efficient service to the Association during the three years she has held this difficult office.

2. And that we express at this time our appreciation of the Business Manager, Mrs. Dorothy B. Richmond, and our regret that she finds it necessary to sever her connection with the office of the Association.

Respectfully submitted,

MARIE HOFF,
Chairman, Resolutions Committee.

Lack of space prevents the publication of the Secretary's, Treasurer's, Business Manager's, Publicity and Program Chairmen's reports in this issue of the JOURNAL.

NEWS NOTES

The Twelfth Annual Meeting of the American Dietetic Association was held on October 7th to 11th at the Hotel Statler, Detroit, Michigan. It was one of the most successful Conventions ever held. The attendance was greater and the interest more keen than at any previous meeting. This was very largely due to the earnest and thorough work of the local committees, the program, publicity, and exhibit chairmen. There were over four hundred delegates registered and more than one hundred and fifty certificates were turned in, making the fare and a half rates on the railroad, possible.

After the registration, which was greatly facilitated by the new file system, the remainder of Monday morning was spent in visiting the exhibits.

Mary Harrington graciously presided at the opening luncheon on Monday noon. Brief addresses of welcome were given by Edna M. White of the Merrill Palmer School, who urged all to attend the tea at the school on Tuesday; Harley Haynes, M.D., of the University of Michigan Hospital, representing the state Hospital Association of Michigan; Louis Hirschman, M.D., President of the Michigan State Medical Society; Jane Ramsay of the Parker Hospital, representing the nursing group; and Lenna Cooper, President of the Michigan Dietetic Association, who extended a very cordial invitation to visit the Battle Creek Sanitarium. The President, Anna E. Boller, acknowledged the invitations and greetings on behalf of the Association. She extended to all friends of the Association a cordial invitation to attend the meetings and join in the activities of the Convention, and expressed her appreciation and thanks for the hospitality of Detroit.

The Monday afternoon session opened with Miss Boller presiding. Walter E. Alvarez, M.D., gave a most interesting and vivid lecture on "The Mechanics of Digestion." It was generously illustrated with slides, and made an effectual appeal for a "few smooth diets" for the neurasthenic type of patient. The annual business meeting of the Association followed. The officers elected for the year 1930 were: Anna E. Boller, President; Margaret Gillam, President-Elect; Martha Koehne, 1st Vice-President; Thelma Tubbs Currier, 2nd Vice-President; Phyllis D. Rowe, Secretary; and Katharine M. Thoma, Treasurer.

The suggested amendments to the Constitution were adopted without modifications.

The reports of the section chairmen were read and showed marked progress in the various fields of Diet Therapy, Administration, Education, and Social Service. The meeting adjourned for tea at the Harper Hospital with Esther Sackman and her staff as hostesses.

The Section Dinner meetings were held on Monday evening. Clyde Schuman of the American Red Cross presided at the Social Service Section. Mary Sweeney of Merrill Palmer School gave an inspiring talk on "Reminiscences and Dreams for the Nutritionist in Social Service Work." The sub-committee reports were interesting and very well organized.

Lenna Cooper presided at the dinner of the Administration group. Helen Clarke of Clifton Springs Sanitarium led a discussion on "What is Our Name and How Do We Spell It?" The consensus of opinion seemed to favor the term "dietitian."

The Education Section was presided over by Ruth Cooley, and interesting reports were given by Martha Koehne on college curricula for nutrition students; Dorothy Hacker of the Indiana University Hospital on "Nutrition Courses for Student Nurses;" Kate Daum of the University of Iowa Hospital on "Nutrition Courses in Medical Schools;" Millie Kalsem of Cook County

Hospital, Chicago, on "Hospital Affiliation for Student Dietitians;" Eugenia Martin on "Hospitals Approved for Student Dietitians;" Florence Levy of Sinai Hospital, Cleveland, on "Survey of Hospital Courses, for Hospital Dietitians;" Sarah Elkins of Michael Reese Hospital on "Development of the Educational Exhibit" and Annie Laird of the University of Toronto on "Nutrition Courses in Canada."

Helen Anderson presided at the Diet Therapy Section dinner. Helen S. Mitchell of Battle Creek summarized the recent work on "Blood Building Foods," showing the evident value of copper and possibly manganese in connection with iron in the treatment of anemias. She also gave a brief sketch of her nutrition survey for Dr. Grenfel in Labrador.

Marie Dye of Michigan State College very clearly discussed the "Factors Influencing Calcium and Phosphorus Retention and Utilization." The sub-committee reports of Martha Davis, Nelda Ross, Elizabeth Hayward, Annie Laird, Sister Mary Victor, and Mabel Flanley all showed marked progress and well defined aims.

The general session, on October 8th, was sponsored by the Section on Administration, with Theresa Clow presiding. J. L. Hennesey, Vice-President of the Statler Hotels, gave a most practical talk on "The Business of Feeding People;" Ruth Atwater of the National Canners' Association outlined "What the Dietitian Should Know about Canned Goods." She illustrated the effects of the various alloys on peas, strawberries, etc., and showed the remarkable progress in methods of canning foods to prevent loss of color, flavor, texture and food value. C. O. Addison of the Stearns Company, Chicago, pointed out "What is New in Equipment."

Kate Daum presided Tuesday afternoon at the General Session, planned by the Social Service Section. L. H. Newburgh, M.D., of the University of Michigan, read a paper on "Endogenous Obesity," showing there is really only one variety of obesity and that a reduction in caloric intake will eventually correct such a condition. Hugo Freund, M.D., of Detroit, followed Dr. Newburgh with a discussion of "The Clinical Aspects of Obesity." R. T. Woodyatt, M.D., of Rush Medical College, Chicago, gave a clear-cut outline for treatment in "Emergencies in Diabetes." Walter S. McClellan, M.D., of Russell Sage Institute of Pathology, described his recent experimental work on "An Exclusive Meat Diet." He pointed out that an all meat diet did not presuppose an exclusively protein diet, since all parts of meat were included. The tea which followed at Merrill Palmer School, with Edna White and her staff as hostesses, was well attended.

At the banquet on Tuesday evening, Anna E. Boller made a charming and clever toastmistress. Dr. William Henderson of the University of Michigan discussed "Modern Science and the Changing Order." Margaret Justin, President of the American Home Economics Association, pleasingly presented her views on "Woman and the Changing Order" and Ruth Wheeler of Vassar College gave the final touch of dignity and inspiration with her picture of "Our Opportunities."

On Wednesday, sixty of the American Red Cross workers and their friends gathered for breakfast. An interesting history of Red Cross work in nutrition, before, during, and since the World War, was given by the committee in charge. Ten or more of the workers were dressed in the uniform used during the World War. At the Wednesday morning session on Education, Ruth Wheeler presided. Irma Law, R.N., Missouri State Inspector of Nurses, discussed "The Dietary Department in the Small Hospital." She pointed out the need for care in the preparation of the tray and emphasized the value of a real appreciation of the needs of the patient. Martha Koehne discussed the results of her recent survey of "College Preparation for Nutrition Work." She outlined the requirements of the student dietitian, both from the point of view of the student and the one employing her. Mary Sweeney of Merrill Palmer School gave a practical talk on "The Present Trend of Parental Education." She believes in training the father as well as the mother, studying the problems of the parents and considering the entire personality of the child as a product of his environment. Herman Smith,

M.D., of Michael Reese Hospital, pointed out "The Hospital's Responsibilities to the Community."

The afternoon session of the Section on Social Service opened with Frances Stern presiding. Lydia Roberts of the University of Chicago gave some very useful suggestions to the dietitian in social service work. Claudia Gilbreath of the American Red Cross explained the position of the Red Cross dietitian in social and community work. The future of the dietitian in social service work was discussed by Mrs. Louise Addis, of the New York Associated Charities; and Mary Barber, of the Kellogg Company, showed the possibilities of contributions from dietitians in the commercial field. The Statler Hotel served tea with Miss Brown, dietitian of the hotel, as hostess, following the meeting.

Frank N. Allan, M.D., of the Mayo Clinic, outlined in a very clear and interesting manner "The History of Dietary Treatment of Diabetes" from the earliest biblical records through the most recent research and practice, at the evening meeting, presided over by Thelma Tubbs Currier. Cyrus Sturges, M.D., of the University of Michigan, discussed "The General Dietary Management of Pernicious Anemia" in a masterly fashion. He pictured the symptoms, outlined the former methods of treatment with liver and liver extract, and showed that the results of recent research indicate that dessicated pigs' stomach, in 200 gram quantities, does the work of 400 to 500 grams of calves' liver in far shorter time and at a lower cost. He also called attention to the fact that the various liver extracts vary in potency. Solomon Strouse, M.D., of Michael Reese Hospital, Chicago, gave a practical talk on "The Development of the Therapeutic Diet from the Normal Diet." According to Dr. Strouse, one should study the diet the patient has been using, see how it agrees with his trouble, then adjust it to meet the patient's needs.

On Thursday, buses left the Statler for a tour around Detroit. Visiting the Ford Hospital, they were escorted through this beautiful modern building by members of the medical staff. The delegates then went to the University of Michigan Hospital at Ann Arbor where Margaret Gillam greeted them and acted as hostess at luncheon. Dr. Cyrus Sturgis' research department and the many departments of this unusually well organized institution were visited. Two demonstrations were staged in the auditorium for the benefit of the visitors—a clinical demonstration (for nurses) of two well defined cases of infant acrodynia and a well-learned lesson in diabetic management recited by children, showing the result of careful training and excellent planning.

After a delicious luncheon was served, Russell Bunting, D.D.S., of the hospital staff, spoke on "The Relation of High Carbohydrate Diet to Dental Caries."

Over two hundred dietitians visited Battle Creek Sanitarium on Friday. Dr. Kellogg and Miss McCauley entertained the group at a luncheon; no one could fail to appreciate the unusual and artistic manner in which the hall and tables were decorated. After lunch everyone enjoyed a trip through the kitchens and a visit to Helen Mitchell's laboratory.

Much of the attention of the Convention centered around the interesting and instructive exhibits. Every year brings a few more exhibitors than previously. The Association is indeed indebted to the following list of exhibitors for their attractive booths and their careful, helpful explanations:

Exhibitors

Amcoin Coffee System, Buffalo, N. Y.
American Honey Producers' League, Los Angeles, Calif.
Battle Creek Food Company, Battle Creek, Mich.
Chicago Dietetic Supply House, Chicago, Ill.
Davis Baking Powder Company, Hoboken, N. J.
Evaporated Milk Association, Chicago, Ill.
J. B. Ford Company, Wyandotte, Mich.
General Foods Corporation, New York, N. Y.
S. Gumpert Company, Inc., Brooklyn, N. Y.
Chr. Hansen's Laboratory, Little Falls, N. Y.
Horlick's Malted Milk Company, Racine, Wis.
Hospital Topics & Buyer, Chicago, Ill.

Institute of American Meat Packers, Chicago, Ill.
International Nickel Company, New York, N. Y.
Johnson-Appleby Company, Cambridge, Mass.
Journal of the American Dietetic Association, Chicago, Ill.
Journal of the American Home Economics Association, Baltimore, Md.
Kellogg Company, Battle Creek, Mich.
Libby, McNeil & Libby, Chicago, Ill.
Lippincott Publishing Company, Philadelphia, Pa.
McCormick & Company, Inc., Baltimore, Md.
Macmillan Publishing Company, New York, N. Y.
Mead Johnson & Company, Evansville, Ind.
Mellins Food Company, Boston, Mass.
National Child Welfare Association, New York, N. Y.
National Dairy Council, Chicago, Ill.
E. L. Patch & Company, Boston, Mass.
A. F. Pattee, Mt. Vernon, N. Y.
Ralston Purina Company, St. Louis, Mo.
Royal Baking Powder Company, New York, N. Y.
W. B. Saunders Company, Philadelphia, Pa.
John Sexton & Company, Chicago, Ill.
E. R. Squibb & Son, New York, N. Y.
Super Maid Cook-Ware Corporation, Chicago, Ill.
Swartzbaugh Manufacturing Company, Toledo, Ohio
S. C. Teichs Company, Chicago, Ill.
United Fruit Company, Boston, Mass.
Welch Grape Juice Company, Westfield, N. Y.

EMMA L. FEENEY,
Assistant Editor.

The Baltimore Dietetic Association. Officers for 1929–30 are: Alma Bering, President; Miriam Connoly, Vice-President; Emma Childs, Treasurer; and Anna Trentham, Secretary.

The September meeting was held in the Home Economics Department of the Consolidated Gas, Electric Light and Power Company of Baltimore, where Anna Trentham, Director, was hostess. Mary Dahnke of the Kraft-Phenix Cheese Corporation of Chicago gave an interesting demonstration on new cheese dishes, calling particular attention to their suitability and adaptation for use in institutions and kitchens where large quantity cookery is done. After the demonstration an informal reception was held in honor of guests who had gathered in Baltimore to act as judges in a country-wide cake baking contest, sponsored by McCormick and Company, as part of the 40th anniversary celebration of their founding. The following were introduced to the members of the Association by Eleanor Howe, Director of the Home Economics Department of McCormick and Company: Mrs. Marjorie Child Husted, of the Washburn-Crosby Company, Minneapolis, Minn.; Joan Rock, Royal Baking Powder Company, New York City; Mrs. Julia Kiene, Capper's Farmer, Topeka, Kansas, Mrs. Florence LaGanke Harris, Cleveland Plain Dealer, Cleveland, Ohio; Faye Hamilton, Home Making Center, New York City; Mrs. Anna B. Scott, Philadelphia Inquirer, Philadelphia; Clementine Paddleford, Farm and Fireside, New York City; Georgia Hess, Hazel-Atlas Glass Company, Wheeling, W. Va.; and Alta Given, H. I. Williams Studio, New York City. An informal meeting followed, during which Miss Trenham served refreshments. During this time the out-of-town guests found opportunity to express to the various members of the Baltimore Dietetic Association their appreciation of the delightful hospitality which had been extended to them.

At the November meeting a dinner was enjoyed at the Woman's City Club. During the business session which followed, nine new members were accepted in the association. Miss Steele, of the West Baltimore General Hospital, was called upon for a current topic of her own selection. She discussed her recent visit to the University Hospital at Ann Arbor, Michigan, and a very comprehensive report of the order of work in the many departments of this hospital was given. Miss Steele also gave several incidents in connection with her trip to the Battle Creek Sanitarium. Eunice Burns, of the Refectory, gave a report on the National Meeting of the Restaurant Association, recently held

in Louisville, Ky. It was gratifying to hear that twenty-one Baltimoreans attended this meeting. Lida L. Tall, President of the Towson State Normal School, was the speaker of the evening. Miss Tall discussed "Food problems in an institution."

The members of the Association have embarked on a most interesting winter cruise to discover where and how some of their favorite foods and equipment are made. The first call was made at McCormick and Company, to see the complete process of manufacture of Bee Brand Spices and Extracts, and Banquet Teas. Experienced guides were at the door to conduct the members of the cruise through the many parts of the plant. The carefully routed trip included the most interesting points and started from the vast store-room of raw materials, many of which were still in the original wrappings. Next were seen the ingenious machines which were all busily cleaning, sifting, grading, grinding, packaging and labeling the various products. Then came the shipping room with its huge boxes of finished spices, teas and extracts. The last stop, and perhaps the most interesting, was made at the auditorium and experimental kitchen of the Home Economics Department. Here the callers were greeted by W. M. McCormick, President of the company, and by Eleanor Howe, Director of Home Economics Department. The afternoon tea served as a welcome climax to the day.

Dorothy Bell of Springfield, Illinois, is now assistant dietitian at Sheppard-Enoch Pratt Hospital. Miss Bell had her student work at Michael Reese Hospital, Chicago.

Anita Schaeffer has charge of the new reception building at Sheppard-Enoch Pratt Hospital. Miss Schaeffer is a graduate of the University of Wisconsin, and had her student work at the University of Minnesota.

Eunice Burns, of the Refectory, attended the national meeting of the restaurateurs at Louisville, Kentucky.

Dorothy Carter, of the University of Chicago, has accepted a position as assistant to E. Howe in the Home Economics Department of McCormick and Company.

Mary Stewart York of the University of Maryland has charge of the new Home Economics Department of the Schluderberg-Kurdle Meat Packing Company.

Ann Merkle, dietitian at the Church Home and Infirmary Hospital, and Emma Childs, dietitian at Goucher College, spent the summer travelling in Europe.

Helen Steel, a former Pratt Institute graduate, and student dietitian at the Church Home and Infirmary Hospital, is at present dietitian at the West Baltimore General Hospital.

Genevieve Deegan, who for the past two years has been connected with St. Agnes Hospital of this city, is now associated with Mercy Hospital as chief dietitian.

Miss Deegan, Miss Steel and Miss Rowe, were among the Baltimore delegates to the American Dietetic Association meeting at Detroit.

Gertrude Riale, former treasurer of the Baltimore Dietetic Association, was recently married to William L. Towers, of this city. Mrs. Towers is a graduate of Drexel Institute, Philadelphia. Before her marriage, Mrs. Towers was associated with the Church Home and Infirmary Hospital, the Home for Incurables and the Union Memorial Hospital of this city. The best wishes of the Association are extended to Mr. and Mrs. Towers.

Grace Lewis, a graduate of Blue Mountain College, Blue Mountain, Mississippi, with post graduate work at the Baptist Hospital, Memphis, Tenn., and the Fifth Avenue Hospital, New York City, is succeeding Mrs. William L. Towers as chief dietitian at the Union Memorial Hospital. Miss Lewis was affiliated with the Emergency Hospital of Washington, D. C.

Catherine Couchez, a graduate from Michigan State Normal College, Ypsilanti, Mich., and post-graduate of Stanford University Hospital, San Francisco, has been chief dietitian at St. Joseph's Hospital since September 1.

Last semester one additional cafeteria was brought under the City School Board, when a Boys' Vocational School was opened. While enrollment was small and the kitchen space was crowded, the food was of the best quality and was greatly appreciated by the

students. At the present time there are eight of the city schools under the control of graduate dietitians who are considered on the faculties of their respective schools. The school cafeterias come under the vocational department and are under the direction of a central business office. Each dietitian has complete charge of her cafeteria; her work includes organizing, menu planning, buying, records, and supervision of food preparation. Most of the present dietitians hold their masters' degrees from Columbia University.

Vera M. Stemple formerly therapeutic dietitian at Sheppard Pratt Hospital has charge of the Southern High School cafeteria this year.

Vivien A. Seeber has taken a year's leave of absence from the city school system. She is at her home in Houghton, Michigan.

Mrs. Martha Blatz, formerly dietitian at the Forrest Park High School, has been made supervising dietitian of all the school cafeterias. As soon as arrangements can be made, her office will be moved to the Administrative building.

Mrs. Reba Kreidler who comes to us from the Horace Mann School of New York City has charge of the Forrest Park High School Cafeteria.

Johns Hopkins Hospital Dietary News Notes. Celia Swecker, formerly at Johns Hopkins, is now chief dietitian at the University Hospital, Charlottesville, Virginia.

Announcement has been made of the engagement of Frances Russell, assistant dietitian of the Johns Hopkins Hospital, to Carl Myers of Boston.

Florence Waechter has taken the position of assistant dietitian at the Johns Hopkins Hospital.

Carolyn Wood is now assistant dietitian at the Oriole Cafeteria.

Florence Bateson, formerly assistant dietitian, Johns Hopkins Hospital, is taking work at the University of Chicago towards her Master's Degree in Nutrition, after having travelled through the West for several months.

Elva James, who spent the summer as dietitian at the Baltimore Girl Scout Camp has gone to her home in Oakland, La. for a short vacation.

Joy Fitzsimmons, assistant dietitian at the Pine Grove Camp, Harrisburg, Penn., for the summer, has accepted a position as assistant dietitian, Johns Hopkins Hospital.

Phyllis Dawson Rowe, dietitian at the Johns Hopkins Hospital, is at present a patient in the hospital, having had another operation on her ear. She is making a good recovery and expects to be on duty in a week or two.

The Chicago Dietetic Association lost an honorary member this fall when Dr. Katherine Blunt, Chairman of Home Economics at the University of Chicago, resigned her position to become president of the Connecticut Women's College. To express their appreciation of her help and friendship in the past, the members of the Association held a farewell dinner in her honor at the Women's University Club in the Medical and Dental Arts Building, August twenty-third.

The first regular meeting since June was held September 18th. Dr. Robert W. Keeton spoke on "Diet in Acute Infections." The second speaker was Mr. Perry Swern of the architectural firm of Berlin and Swern who talked on "A Bacon Plan Hospital in Action," illustrating the central food service system of Albany Hospital, Albany, N. Y., with a movie.

In October, Dr. Soskin, research worker of the Max Pam Metabolism Fund, Michael Reese Hospital, talked to the Association on "Certain Aspects of Obesity."

Margaret Fritschel has accepted a position at the University of Nebraska Hospital, Omaha, Nebraska. Her work consists of teaching medical students and nurses, and helping organize an out patient clinic at the hospital.

Gertrude Lynch left Cook County Hospital to go to Grand Rapids, Michigan. Z. Williams is taking her place.

Mrs. Ena Humphrey came to Presbyterian Hospital from Methodist Hospital, Madison, Wisconsin.

Dr. and Mrs. Fischer (Esther Ackerson), are receiving congratulations on the birth of a daughter, Joan Esther.

Mr. and Mrs. Fowler (Rose Straka) are the proud parents of a son, Glen Crawford.

The Cleveland Dietetic Asspciation. Mary Terry, dietitian at Cleveland City Hospital was married September 5th to John P. Burrill. Miss Hendershot is now dietitian at City Hospital.

Mary Pakrder, head of the Home Economics Department of the Western Reserve University, was hostess to members of the Cleveland Association on October 21st. Reports of the Detroit convention were given.

The Massachusetts Dietetic Association. At the opening meeting in September, Frances Stern gave an interesting talk on her visit to European food clinics.

At the October meeting, Mrs. Thelma Tubbs Currier, in her talk on "Training Students under American Dietetic Association Standards," emphasized the fact that courses for student dietitians should be standardized. Interesting reports were given by the members who attended the American Dietetic Association Convention; among the members who attended were Edith Hoadley, Frances Stern, Gertrude Spitz, Meniza Moore, Margaret McGovern, Blanche Collier, Beulah Becker, Marion Floyd, Hilda French, Blanch Smith, Mrs. Quindara Oliver Dodge, and Mrs. Thelma Tubbs Currier.

Helen Hance has recently been appointed administrative assistant at the Massachusetts General Hospital.

Meniza Moore, until recently of the Grace Hospital in New Haven, Connecticut, has been appointed chief dietitian at the Beth Israel Hospital.

Margaret Olson, a Massachusetts General Hospital graduate, has been appointed assistant dietitian at the Beth Israel Hospital.

Miss Buzbee resigned as dietitian at the Massachusetts Eye and Ear Infirmary on August 1st, and Helen Sawyer, a graduate of Massachusetts General Hospital, has been appointed to succeed Miss Buzbee.

Helena Brooks, until recently dietitian at Devereau Mansion, Marblehead, has been appointed assistant dietitian at the Cambridge Hospital.

The Milwaukee Dietetic Association held its first meeting of the year at Children's Hospital October 8, with Nell Clauson as hostess. This is the second year of the Association, which was organized May, 1928, at the Soldiers' Home.

Ada B. Loth, Chief dietitian of the Milwaukee County Hospital, the President, is enthusiastic about the future of the organization, and expects to see a marked increase in membership. Margaret Davis of Milwaukee Hospital is the Secretary.

The Minnesota Dietetic Association. The September meeting was held at the University Hospital, Minneapolis. Gertrude Thomas, chief dietitian, took the members of the Association through the new Children's Hospital and the remodeled dietary department. Tea was served.

The Association held its November meeting at the Gillette State Hospital, St. Paul. The program included: "Book Reviews;" "Children's Hospitals," by Gertrude Eckman of the Children's Hospital, St. Paul; "Milk Modifications," Agnes Teigen of the University Hospital, Minneapolis; "Children's Diets," Dr. L. R. Critchfield of St. Paul; and "Menus in Use at the Gillette State Hospital," Virginia Bailey, dietitian in charge.

Helen Strong, formerly at Veterans' Hospital 106, Fort Snelling, was recently married to Oscar Pierson. Mr. and Mrs. Pierson are making their home in Minneapolis.

Friends of May O'Toole will regret to hear of her sudden death. Miss O'Toole was ill only a few days with diabetes and passed away October 28th at St. Joseph's Hospital, St. Paul. Miss O'Toole was on the dietary staff of the U. S. Veterans' Hospital 106, Fort Snelling.

Ida Tuttle is the new assistant at St. Luke's Hospital, St. Paul. Betty Irwin left St. Luke's to take a position with the U. S. Veterans' Hospital in Outwood, Kentucky.

Lillian Lillyhei has become the assistant dietitian at Fairview Hospital, Minneapolis. Miss Lillyhei had her student work at the University Hospital.

Gladys Murphy has succeeded Helen Kuntz, dietitian at Northwestern Hospital, Minneapolis. Lillian Hoff is assistant to

Miss Murphy. Miss Kuntz, at the present time, is relieving at the Abbott Hospital, Minneapolis, while Janice Purdy is recovering from injuries received in an automobile accident.

The New York Association of Dietitians held the first meeting of the year at Russell Sage Foundation Building. The speakers were Mrs. B. S. Coglan, Laura C. Fawcett, Emma Holloway and H. W. Roberts, all of whom discussed cafeterias.

Henderika Rynberger has left the Presbyterian Hospital in New York to go to the American University in Beirut, Syria, to take charge of the dietary department of the University Hospital there. Gladys Hills, a graduate of Temple University and a former Presbyterian Hospital student, is taking her place in the Food Clinic.

The Rhode Island Dietetic Association elected the following officers: Clara Watkins, President; Helen Taylor, Vice President; Florence Wharff, Treasurer; Jennette I. Thompson, Secretary; Helen Munro, Chairman Program Committee; and Alice Flint, Chairman Membership Committee.

Clara Watkins has left Providence to study at Columbia, and Helen Taylor has been asked to take the presidency.

Christine Norton has taken the position of dietitian at the Homeopathic Hospital in place of Arlene Jelleson.

Beatrice Hubbard who formerly assisted Miss Jelleson at the Homeopathic Hospital is now assistant dietitian at Brown University.

Mildred Clough has returned to her duties at the Lying-In-Hospital after several weeks' illness in her home in New Hampshire.

Eileen Shankle, formerly dietitian at City Hospital, has entered New Baptist Hospital as a student nurse. Her place has been filled by Evelyn Rollins.

Clara Watkins' place at Butler Hospital is being filled by Isabel Stanley, who has been at the Morton Hospital in Taunton.

Alice Flint and Miss Taylor of the Rhode Island Hospital and Florence Miller of Butler Hospital attended the American Dietetic Convention.

The Richmond Dietetic Association. Mary Ruth Curfman has left Johnston-Willis Hospital and is now in charge of the dietary department at Kansas City General Hospital, Kansas City, Missouri. Helen Roll of Pratt, Kansas, has succeeded Miss Curfman at Johnston-Willis Hospital.

Miss Scott, Miss Ballard, and Miss Horner have left Memorial Hospital. Aileen Brown has taken Miss Scott's place at Memorial Hospital with Martha Seebert and Nellie Turner as her assistants.

Celeste Whiteside, of the Retreat-for-the-Sick, is to be married, and Lois Watts is succeeding Miss Whiteside.

Meredith Droll of the Y. W. C. A. Cafeteria has left Richmond. Mildred Hepler is the dietitian at the Y. W. C. A. now, with Sarah Milnes as her assistant.

Verona Elsner has taken a new position. Frances Lauder of Viroqua, Wisconsin, is now Industrial Dietitian for the John G. Kolbe Company.

The Rochester Dietetic Association had its annual picnic at the home of one of its former members, Mrs. Phillips, at Hulbert, N. Y. The first meeting of the season was held in October at the Rochester General Hospital with Effie Winger, Blanch Bohach, Irene Brick and Dorothy Sayre acting as hostesses. Officers were elected as follows: Effie Winger, President; Gertrude Binns, Vice President; Blanch Bohach, Secretary; and Ellen Guernsey, Treasurer.

It was voted that the Rochester Association contribute twenty dollars to the Central Western Home Economics Section of the New York State Association toward the expense of bringing Dr. Mary Schwartz Rose to the November meeting of the Home Economics Association. It was decided that this meeting with the Home Economics Association should take the place of our November meeting. Dr. Rose spoke on "Up-to-Date Findings in Nutrition" and "The Teaching of Nutrition."

The Association decided to extend an invitation to the National Association for the 1930 Convention. Members attending the National Convention in Detroit this year

were Effie Winger, Gertrude Binns, Jane Herendeen and Grace Carden. The December meeting will be held at the Strong Memorial Hospital when the proposed program for the remainder of the year will be presented.

The St. Louis Dietetic Association elected the following officers for the ensuing year: Eugenia Martin, President; Emma Millard, Vice President; Mabel Unger, Secretary; and Florence Love, Treasurer.

Bethel Curry, graduate of Michael Reese Hospital, is now assistant administrative dietitian at Jewish Hospital.

Mabel Unger, formerly with the International Shoe Company, is now supervisor of school cafeterias in University City.

Mercedes Sullivan was married, August 19th, to William Mitchell of Columbus, Ohio. Ruth Kahn of Barnes Hospital has taken her place as clinic dietitian in the Washington University Dispensary.

Estelle Hagnauer, graduate of Barnes Hospital, is in charge of the metabolic kitchen there.

Mary Alexander, former assistant at Barnes Hospital, is now dietitian at Burnham Hospital, Champaign, Illinois.

Hazel Bradburn is leaving Jewish Hospital soon to accept a position as consultant dietitian with Dr. W. H. Olmsted. Imogene Hardin will fill the vacancy.

Blanche Mock is now dietitian at the Baptist Memorial Hospital, Memphis, Tenn.

Alberta Shafer of Winnipeg, Canada, has returned from the Peking Union Medical College, Peking, China, and reports a most interesting three years' work. Miss Shafer was acting Head Dietitian during her last year there and on her leaving, Mrs. Huang Kwe Pau resumed the Headship of the Department. Special diet work in Peking was particularly interesting because of a greater variety of diet cases and the incorporating of the native foods in these diets. Diabetic diets are less difficult to arrange because the Chinese have more low-carbohydrate vegetables than we have, and their method of cooking these enables one to use fairly large amounts of fat. Small portions of meat can be used more advantageously and desserts are not a necessary part of the meal.

THE PERMANENT EDUCATION EXHIBIT

SARAH ELKIN, *Chairman*

The Permanent Education Exhibit has successfully passed its second birthday; with proper nourishment and care it will continue to be of progressively greater value. Heretofore, an educational exhibit has been prepared for each national convention of the American Dietetic Association, and then discarded. At present all the material is catalogued and maintained in folders and kept in filing cabinets in readily accessible form.

There are no duplicates and therefore it is necessary that those interested return the borrowed material promptly. Last year there were requests from the members and excellent coöperation in prompt returns; this was very gratifying to the committee, who trust that this support continues. In order to convey just what the exhibit contains and how to apply for material, the following sample order and outline of the contents of the exhibit are submitted. Due to the necessary expense of maintaining the exhibit, the illustrative material will be available only to members whose dues are paid. Please be certain to give correct call number and title of literature wanted.

SAMPLE ORDER

To The American Dietetic Association
25 East Washington Street,
Chicago, Ill.

Please send the following:

B4 Barnes and Maternity Hospital, St. Louis, Mo.
Dietetics for student nurses.
Diets, special.

M7 Montefiore Hospital, New York, N. Y.
Administration
Employments

These will be returned after *two weeks*.

Yours very truly,

CONTENTS—PERMANENT EDUCATION EXHIBIT

A1 *Institute of American Meat Packers, Chicago, Ill.*
- Liver—nutritive value and ways of serving.
- Meat diet in health and disease.
- Use of meat. Bulletin No. I.
- Use of Meat. Bulletin No. II.

A2 *Auburn City Hospital, Auburn, N. Y.*
- Diets, special.

A3 *American National Red Cross. Washington, D. C.*
- Food. Why? What? How?
- Nutrition service.
- Organization of a nutrition service.

A4 *American Hospital of Paris, Paris, France.*
- Forms, hospital (French).
- Menus (French).
- Mother's forbidden foods.
- Pre- and post-operative food régime.

B1 *Robert Brigham Hospital, Boston, Mass.*
- Diets, special.
- Menus.

B2 *Baltimore Dairy Council, Baltimore, Md.*
- Nutrition material for children.

B3 *Baylor University Hospital, Dallas, Texas.*
- Forms, hospital.

B4 *Barnes and Maternity Hospital, St. Louis, Mo.*
- Dietetics for student nurses.
- Diet therapy.
- Diets, special.
- Food costs.
- Forms, hospital.
- Menus
- Student dietitians' course

B5 *Bellevue and Allied Hospitals, New York City, N. Y.*
- Cost accounting.
- Dietetics for nurses.
- Diets, special.
- Miscellaneous forms
- Requisition blanks
- Student dietitians' course.

B6 *Boston City Hospital, Boston, Mass.*
- Dietetics for student nurses.
- Dietetics for medical students (practical course).
- Diet therapy for student nurses.
- Diets, special.
- Forms, hospital.
- Student dietitians' course.

B7 *Battle Creek Sanitarium, Battle Creek, Mich.*
- Dietetics for student nurses.
- Diets for home use.
- Diets for uncomplicated cases.
- Menus used for surgical cases.

B8 *Battle Creek Sanitarium, Nutrition Research Laboratory.*
- Iron, inorganic, in relation to nutritional anemia.
- Iron from various sources in relation to nutritional anemia.
- Animal experiments conducted at nutrition laboratory.
- Carbohydrates (five), comparative physiological values based on growth and fecal analysis.
- Lactose, comparative physiological values based on growth and fecal analysis.

B9 *Boston Dispensary, Boston, Mass.*
- Bibliography on nutrition, hygiene, health education.
- Diabetic patients, foreign, food treatment.
- Food classification and values.
- Food clinic.
- Food for the body.
- Health education in the out patient clinic.
- Out patient department—diet therapy.
- Recipes, milk and egg.

B10 *Bibliographies.*
- Hypertension.
- Nephritis.
- Books and pamphlets on diet and disease.

B11 *Bloomingdale Hospital, White Plains, N. Y.*
- Diets
- Dietetics for student nurses.

Dietary case study outlines.
Forms, hospital.
Student dietitians' course.

C1 *Community Health Association, Boston, Mass.*
Budgets.
Pregnancy.
Prenatal care—nutrition talks
Social service dietetics

C2 *Clifton Springs Sanitarium and Clinic, Clifton Springs, N. Y.*
Diets
Menus, selective—dining room and tray service.
Menus, special diet.
Epileptic diet.
Nutrition for student nurses—laboratory work.
Student dietitians' course.

C3 *California Lutheran Hospital, Los Angeles, Calif.*
Diets, special.

C4 *Civic Hospital, Ottawa, Ontario, Canada.*
Diabetic diets.
Dietetics for student nurses.
Diets, special.
Formula room recipes.
Liver recipes.
Menus.
Requisition blanks.

C5 *Children's Hospital, Boston, Mass.*
Dietetics for student nurses.
Diets.
Menus.

C6 *Cook County Hospital, Chicago, Ill.*
Case study outline, dietary, for student dietitians.
Diabetic instructions to ambulatory patients.
Dietetics for student nurses.
Diets.
Forms used in dietary department.
Forms used in dietary department of nurses' home.
Forms used in metabolic division.
Formula order blanks.
Student dietitians' course.

C7 *Columbus Hospital, Chicago, Ill.*
Nephritic diets.
Reducing diets.

C8 *Columbia University, New York, N. Y.*
Dietary case studies, Helen Jackson Hubbell.

C9 *Cornell University, Ithaca, N. Y.*
College course for student dietitians.
Dietetics for student nurses.

Journal of the American Dietetic Association—Reprints

D1 *Clinic.*
The food clinic as a center for teaching and training students. Frances Stern and Jean Reyner.
Boston's surveys, 1925–1926. Gertrude Spitz.
Nutrition in a health program. Bertha Edwards.
The rôle of nutrition in health education. Clair Turner.
The dietitian and the out patient. Arthur Strauss.

D2 *Education.*
Current list of hospitals giving the approved course for student dietitians.
Student dietitians' course (standard).
A checking scheme for recording special abilities and qualifications for student dietitians. A. Lautz.
College education and the food specialist. Agnes Fay Morgan.
The adjustment of the college graduate to the hospital work in nutrition. Amelia Lautz.
An accredited course for student dietitions. Eva Thallman.

D3 *Administration.*
A nutritive analysis of hospital food bills. R. Wheeler and E. Shalla.
Place of the dietetic department in the hospital from the administrators' viewpoint. S. Gilmore.
Budgeting the dietary department and purchasing food supplies. Lucius R. Wilson.

Scientific buying and meal planning. Quindara Oliver.
Department budget—report of the administration section. American Dietetic Association.
Dietary department budget and equipment. Mary Reed.
Food distribution ledger sheet. E. A. George.
Hospital dietary department. S. Margaret Gillam.
Hospital dietary—a forecast. Malcolm MacEachern.
Economic analysis of hospital food bills. R. Wheeler and V. Moe.
Equipment for a hospital kitchen. Ruth M. Cooley.
Operating of a hotel food department. A. Shircliffe.
Equipment for institution food departments. O. Webber.
Marketing and menu planning. M. Faith McCauley.
Residence hall job analysis. Elizabeth Bemis.
Fundamental buying principles as applied to perishable foods Frederick Snyder.
Psychology of personnel management. Edgar Swift.

D4 *Nursing.*

Report of sub-committee on teaching dietetics to student nurses. Katherine Fisher.
Bedside teaching of student nurses. Helen J. Hubbell.
Examination of student nurses in dietetics. Sister M. Domitilla.
View of the hospital dietitian from the nursing standpoint. Elizabeth Greener.
Nutrition worker in the hospital. Helen J. Hubbell.

D5 *Miscellaneous.*

Simplicity of infant feeding. McKim Marriott.
Breast milk—a variable food. Icie Macy and Julia Outhouse.
Comparative study of Italian, Polish, and Negro dietaries. Gertrude Gates Mudge.
Teaching food selection to patients. Florence H. Smith.
Changes in the German diet. R. R. Kuczyski.
Food fads. Mary Pascoe Huddleson.
Civil Service and the dietitian. B. A. Andrews and Alice Leet.
Chapter in the history of dietetics. Martha Byerly.
Practical problems in dietetics for the medical student. Margaret McGovern.
Nutrition round table of the Massachusetts Dietetic Association. Jean Reyner.

D6 *Medical.*

Recent developments in vitamin structure. W. C. Eddy.
Dietetic factor in post-operative treatment. Llewllyn Sale.
Metabolism of carbohydrate in relation to ketosis. P. Shaffer, M.D.
Emotions and digestive functions. George W. Henry.
Studies of inorganic salt metabolism. W. Bauer and Joseph Aub.

D7 *Diabetes.*

Diabetic diets for children. Julian Boyd and Martha Nelson.
Education of the ambulatory diabetic. W. H. Olmstead.
Diabetic diet. Elliott P. Joslin.
Food requirements in children with diabetes mellitus. W. L. Ladd.
Report of a case of diabetes with complications. Fairfax Proudfit.
Composition of the peanut: a clinical study. Florence H. Smith and R. M. Wilder.
Intelligence and character in relation to food habits.

D8 *Diet Therapy.*

Effect of vegetable purines on the blood in gout. Ruth Wheeler and Bessie Wallace.
Some effects of diet on the biliary tract. G. H. Copher.

Karrell diet and a modified Karrell diet in the treatment of cardiac dropsy. Edwin Bannick.
Preparation of liver for patients with pernicious anemia. Hazel Bradburn.
Relation of the diet to nephritis and hypertension. Norman Keith and Florence H. Smith.
Certain tendencies of modern hospital dietaries for normal people. R. Fitz and A. Lautz.
Nutrition study of an Indian reservation. J. Seene and Lydia J. Roberts.
Adjusting the diet to the patient with pernicious anemia. T. Tubbs and E. Bellinger.
Effect of diet upon reproduction. D. Macomber.
Therapeutic use of diets low in water and in mineral content. N. Keith, Florence H. Smith, and M. Wheelan.
Importance of diet in the treatment of cardiac failure. Fred Smith and Nelda Ross.
Place of the banana in the diet of children. J. Johnston.
Diet and pregnancy. G. D. Royston.
Medical treatment of ulcer of the stomach and duodenum. Milton Portis.
Carbohydrate studies in arthritis. Martha Nelson and J. Boyd.

D9 *Dunedin Hospital, Dunedin, New Zealand.*
Dietetics for student nurses.
Diet therapy.
Chemistry for student nurses.
Recipes.

D10 *Detroit Department of Health, Detroit, Mich.*
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E1 *Evanston Hospital, Evanston, Ill.*
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Diet instructions for patients.
Dietetics for student nurses.
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F1 *Fairmont Hospital, San Leandio, Calif.*
Diabetic diets.
Diets, special.
Forms, hospital.
Menus, salt-free.
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F2 *Fitzsimons General Hospital, Denver, Colo.*
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Dietetic organization.
Menus.

G1 *Good Housekeeping Magazine.*
Meal planning.

G2 *Grace Hospital, New Haven, Conn.*
Diets, special.
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Salad costs.

G3 *Gillette State Hospital for Crippled and Indigent Children, St. Paul, Minn.*
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G4 *Grasslands Hospital, Valhalla, N. Y.*
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H1 *Hartford Hospital, Hartford, Conn.*
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H2 *House of Mercy Hospital, Pittsfield, Mass.*
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I1 *Iowa Methodist Hospital, Des Moines, Iowa.*
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J1 *Jewish Social Service Bureau, Chicago, Ill.*
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Menus on which budget was based.

J2 *Johns Hopkins Hospital, Baltimore, Md.*
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Forms, hospital.
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J3 *Jewish Hospital of St. Louis, St. Louis, Mo.*
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J4 *Jewish Welfare Society, Philadelphia, Pa.*
Food allowance.
Activities.
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Supper club recipes.

K1 *Kellogg Company, Battle Creek, Mich.*
Home economics material.
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L1 *Los Angeles General Hospital, Los Angeles, Calif.*
Diets, special.

L2 *Latter Day Saints' Hospital, Salt Lake City, Utah.*
Diets, special.

M1 *University Hospital, University of Minnesota, Minneapolis, Minn.*
Forms, hospital.

M2 *Merrill-Palmer School, Detroit, Mich.*
Food record.
Menus, children's.

M3 *Institute of Margarine Manufacturers, Washington, D. C.*
False advertising: an exposè of the propaganda against margarine and margarine industry.

M4 *Milwaukee County Hospital, Wauwatosa, Wis.*
Diets, special.
Forms, hospital.

M5 *Missouri Baptist Sanitarium, St. Louis, Mo.*
Dietetics for student nurses.
Dietetics (laboratory) for student nurses.
Diets, special.
Menus.

M6 *Midway Hospital, St. Paul, Minn.*
Dietetics for student nurses.
Diets, special.
Menus.

M7 *Montefiore Hospital, New York City, N. Y.*
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Purchasing and main kitchen.
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M8 *Mercy Hospital, San Diego, Calif.*
Dietary department plan.
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Food composition.
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M9 *Mater Misericordiae Hospital, Sacramento, Calif.*
Calorie chart.
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Protein and sodium chloride charts.

M10 *University of Michigan Hospital, Ann Arbor, Mich.*
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M11 *Elizabeth McCormick Memorial Fund, Chicago, Ill.*
Menus for boys' camp.
Menus for overweight women.
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Recipes and menus for nursery school.

M12 *Methodist Hospital of Southern California, Los Angeles, Calif.*
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M13 *Michigan State College, East Lansing, Mich.*
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M14 *Massachusetts General Hospital, Boston, Mass.*
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Diet lists.
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M15 *Mary Immaculate Hospital.*
Forms, hospital.
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N1 *New England Hospital for Women and Children, Boston, Mass.*
Dietetics for student nurses.
Menus.
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N2 *National Canners Association, Washington, D. C.*
Canned foods, nutritive value.
Canned tomatoes.
Canned foods in daily diet.
Canned corn.
Canned peas.
Canning industry.
Vitamins in canned food.
Canned fruits.

N3 *New England Deaconess Hospital, Boston, Mass.*
Diets, special.
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Market lists, daily.

N4 *New England Dairy and Food Council.*
Nutrition educational material.

N5 *Newton Hospital, Newton Lower Falls, Mass.*
Forms, hospital.
Menus.

N6 *New England Home Economics Association, June 1929.*
Budget council of Boston, report of.

O1 *Ohio Valley General Hospital, Wheeling, W. Va.*
Dietetics for student nurses.
Forms, hospital.
Diets, children 1½ to 5 years.
Diets, special gastro-enterostomy.
Diet instructions to nurses in diet kitchen.
Menus.

O2 *State University Hospital, Oklahoma City, Okla.*
Dietetics for student nurses.
Diet therapy.
Diets, special.
Forms, hospital.
Menus.
Student dietitians' course.

P1 *University of Pennsylvania, Philadelphia, Pa.*
Diets, special.

P2 *Presbyterian Hospital, Chicago, Ill.*
Dietetics for student nurses.
Menus.
Miscellaneous.
Order sheets.
Quantitative.
Student dietitians' course.

P3 *Presbyterian Hospital, New York City, N. Y.*
Dietetics for student nurses.
Dietitian—internes' course.
Diets, special.

Forms, hospital.
General nutrition.
Laboratory dietetics for student nurses.
Menus.

P4 *Philadelphia General Hospital, Philadelphia, Pa.*
Diet list.
Forms, hospital.

R1 *Michael Reese Hospital, Chicago, Ill.*
Dietetics for student nurses.
Diets, special.
Menus.
Student dietitians' course.

R2 *Michael Reese Hospital, Mandel Clinic, Chicago, Ill.*
Diets, children from 6 months to 6 years.
Diets, special.
Diabetic diets, demonstration and instruction materials.
Gastrointestinal demonstrations.
Nutrition class.

R3 *Rochester General Hospital, Rochester, N. Y.*
Diabetic lessons for dispensary patients.
Forms, hospital.
Menus.
Student dietitians' course.

R4 *Walter Reed General Hospital, Washington, D. C.*
Student dietitians' course.

R5 *Roper Hospital, Charleston, S. C.*
Recipe for Lister's diabetic muffins.
Form, special diet.

S1 *Scripps Metabolic Clinic, La Jolla, Calif.*
Chemical composition of food materials.
Dietetics, school of.
Forms, hospital.

S2 *Hospital of Good Shepherd, Syracuse University, Syracuse, N. Y.*
Diets, special.
Forms, hospital.

S3 *State Teachers College, Harrisburg, Va.*
Institutional management course.

S4 *Strong Memorial Hospital, Rochester, N. Y.*
Certificate for student dietitians.
Diet instruction to in patients and ambulatory patients.
Dietetics for student nurses.
Diets, discharge.
Forms, hospital.
Menus.

S5 *St. Luke's Hospital, New York, N. Y.*
Diets, special.
Student dietitians' course.

S6 *San Francisco Hospital, San Francisco, Calif.*
Dietetics for student nurses.
Diets, special.
Student dietitians' course.

S7 *St. Mary's Hospital, Rochester, Minn.*
Diet history.
Diet note book.
Food selection.
Nephritic patient's note book.

S8 *Katharine Stanley, Decatur, Ill.*
Diets, special, and recipes.

S9 *Salem Hospital, Salem, Mass.*
Dietetics for student nurses.
Forms, hospital.
Menus.

S10 *Simmons College, Boston, Mass.*
Dietetics, applied, for students of Simmons College.

S11 *St. Louis Southwestern Hospital (Railway Lines), Texarkana, Ark.*
Menus.

S12 *St. Luke's Hospital of Kansas City, Kansas City, Mo.*
Diet in disease, outline for student nurses.
Dietetics for student nurses.
Diets, special.
Forms, hospital.
Menus.

U1 *United States Veterans' Hospital, Ft. Snelling, Minn.*
- Diets, tuberculosis.
- Diets, special.
- Diets, weekly.

V1 *Victoria General Hospital, Halifax, N.S., Canada.*
- Diets.
- Diet kitchen inventory.
- Forms, hospital.
- Merus.
- Student dietitians' course.

W1 *Wisconsin General Hospital, Madison, Wis.*
- Dietetics for student nurses.
- Diets, special.
- Menus.

W2 *George Washington University Hospital, Washington, D. C.*
- Diabetic material.
- Diets, special.
- Menus.

W3 *Wisconsin Industrial School, Milwaukee, Wis.*
- Diets, special.
- Menus.

W4 *Washington University Dispensary, St. Louis, Mo.*
- Allergy.
- Anemia, liver recipes.
- Diabetic material.
- Diets for children 2–14 years.
- Food habits, teaching to children.
- Food history.
- Food clinic, student dietitians' course.
- Nutrition class material.

W5 *Woodland Clinic, Woodland, Calif.*
- Dietitian interne course.
- Diets.
- Forms, clinic.

Y1 *Youngstown Hospital Association, Youngstown, Ohio.*
- Dietetics for student nurses.
- Diets, special.
- Liver recipes.
- Diabetic directions.
- Forms, hospital.
- Menus.

CURRENT LIST OF HOSPITALS GIVING APPROVED COURSE TO STUDENT DIETITIANS

The following list of approved hospitals has been found acceptable by means of the questionnaire method. Beginning January 1st, 1930, a new method of approval will be followed, by recommendation of the Executive Committee of the Association. Each hospital superintendent, and dietitian in charge of the course for student dietitians, will be notified that the method and equipment for presenting this course will be inspected by a committee of three, who will report and make recommendations for the acceptance or refusal of the hospital's course of study.

The committee anticipates that all hospitals now approved will remain on the list; that others refused may be found acceptable; and that this method of inspection will lead to a higher standard and a greater uniformity of course.

Hospital	*City*	*Dietitian*
British Columbia:		
Vancouver General	Vancouver	Ethel Pipes
California:		
Fairmont Hospital	San Leandro	Eloise Hammel
California Lutheran	Los Angeles	Reeva Hinyan
Hospital of Good Samaritan	Los Angeles	Hester Wieman
Methodist Hospital	Los Angeles	Grace Ames
Scripps Metabolic Clinic	La Jolla	Helen Anderson
Highland Hospital	Oakland	Frances M. Taylor
Stanford University and Medical Schools	San Francisco	Charlotte Sloan
Cottage Hospital	Santa Barbara	Muriel Gowans
Colorado:		
St. Luke's	Denver	
Connecticut:		
Bridgeport	Bridgeport	Leslie Hunter
Illinois:		
Cook County	Chicago	Millie Kalsem
Michael Reese	Chicago	K. Mitchel Thoma
Presbyterian	Chicago	Elizabeth Hennecke
St. Luke's	Chicago	Mary Sorenson
Ravenswood	Chicago	Leota West
Evanston	Evanston	Louise Y. Gilbert
Indiana:		
City Hospital	Indianapolis	Amy Colescott
Indiana University	Indianapolis	Lute Trout
Methodist Hospital	Indianapolis	Mrs. Margaret Marlower

Hospital	*City*	*Dietitian*
Iowa:		
University of Iowa	Iowa City	Kate Daum
Maryland:		
Johns Hopkins	Baltimore	Phyllis D. Rowe
Massachusetts:		
Children's Hospital	Boston	Martha Stuart
Massachusetts General	Boston	Marion Floyd
Peter Bent Brigham	Boston	Thelma Tubbs
Boston City Hospital	Boston	Margaret McGovern
Michigan:		
University Hospital	Ann Arbor	S. Margaret Gillam
Minnesota:		
Ancker Hospital	St. Paul	Winifred Howard
Charles T. Miller	St. Paul	Eva Gregorson
Minneapolis General	Minneapolis	Jeanette Goldthorpe
University Hospital	Minneapolis	Gertrude Thomas
St. Barnabas	Minneapolis	Marion Ladner
Missouri:		
Barnes Hospital	St. Louis	Eugenia Martin
Kansas City General	Kansas City	Mary Curfman
Research Hospital	Kansas City	M. Ethel Ollis
Nebraska:		
Lincoln General	Lincoln	Leta B. Linch
New York:		
Albany Hospital	Albany	Virginia H. Ray
Buffalo City	Buffalo	Ursula Senn
Clifton Springs Sanitarium	Clifton Springs	
Lebanon Hospital	New York City	Betsy Helburn
Montefiore Hospital	New York City	Mary Northrup
Presbyterian Hospital	New York City	Louise Clarke
Rochester General	Rochester	
Strong Memorial	Rochester	Grace Carden
Fifth Avenue Hospital	New York City	Angeline Phillips
North Carolina:		
Watts Hospital	West Durham	Margaret Fitzhugh
Ohio:		
Miami Valley	Dayton	L. Atta Bolender
Mt. Sinai	Cleveland	Helen Mallory
University Hospital	Columbus	
Cincinnati General	Cincinnati	Eleanor Tierney
Oklahoma:		
State University of Oklahoma	Oklahoma City	Edith Tilton
Pennsylvania:		
Graduate School of Medicine	Philadelphia	Lea Lee Miller
Homeopathic Hospital	Pittsburgh	Irene Wilson
Western Pennsylvania	Pittsburgh	Charlotte Addison
St. Joseph's	Philadelphia	Sister M. Alexius Gavin
Philadelphia General	Philadelphia	Elizabeth Miller
Utah:		
Latter Day Saints	Salt Lake City	Katherine Bielby
St. Mark's	Salt Lake City	Elizabeth Steelman

Hospital	*City*	*Dietitian*
Virginia:		
Medical College of Virginia	Richmond	Aleen Braun
Washington, D. C.:		
Walter Reed General	Washington	Grace H. Hunter
Washington:		
Interne Dietitian Training under auspices of the Washington Branch of the American Dietetic Association. Training arranged through affiliation at the following hospitals:		
Tacoma General	Tacoma	Catherine Noonan
Children's Orthopedic	Seattle	Dorothy Goodrich
Seattle General	Seattle	Doreen Aldwell
Northern Pacific Beneficial Association affiliated with Tacoma Hospital	Tacoma	Gertrude Stephens

RUTH M. COOLEY,
Chairman, Approval Committee for Student Dietitian Courses, Education Section.

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